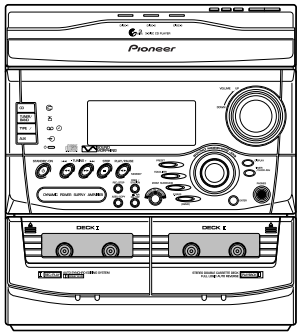
Service Manual



● XR-A660

ORDER NO.
RRV2064

STEREO CD CASSETTE DECK RECEIVER

XR-A660
XR-A330

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model		Power Requirement	Remarks
	XR-A660	XR-A330		
KUCXJ	◯	◯	AC120V	
YPWXJ	◯	◯	AC240V	

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

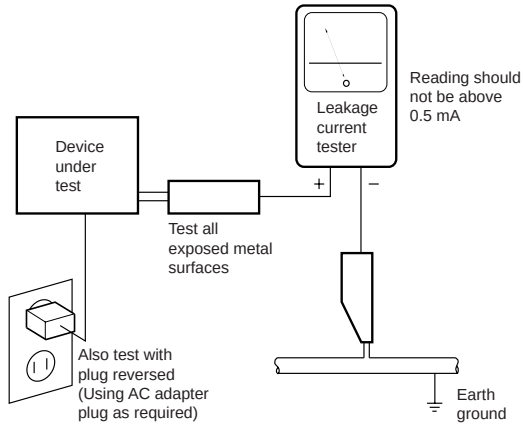
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Reading should not be above 0.5 mA
Leakage current tester
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

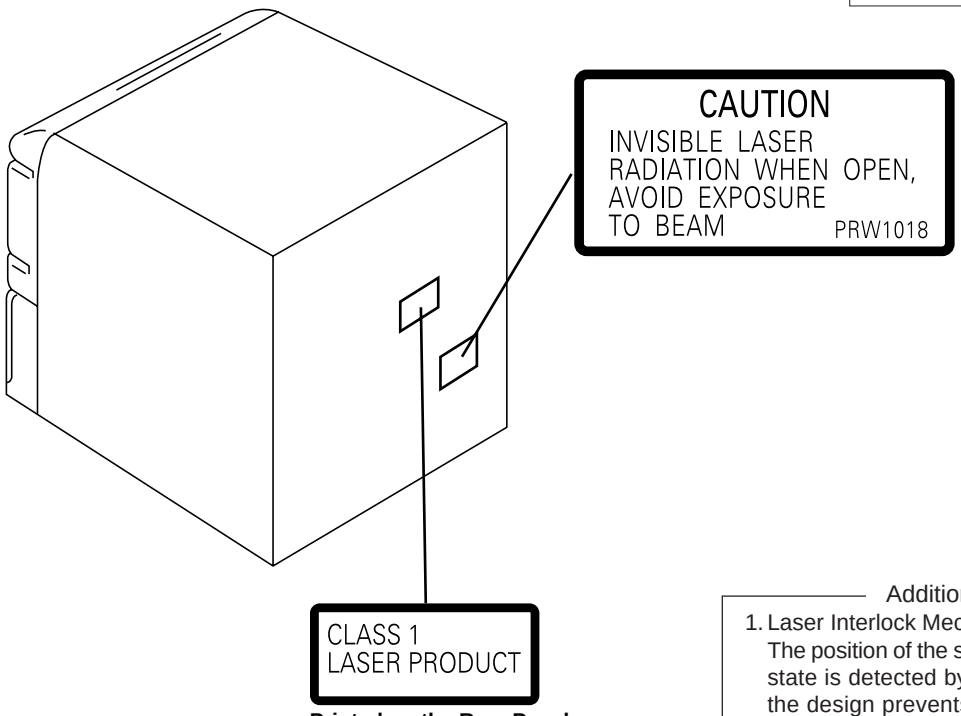
LABEL CHECK (for YPWXJ type)

IMPORTANT

THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER: 1.3 mW
WAVELENGTH: 790 nm ± 25 nm



Printed on the Rear Panel

Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S8501) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S8501) is pressed physically.
   Thus, the interlock will no longer function if the switch (S8501) is released physically and deliberatery.
   The interlock also does not function in the test mode ∗.
   Laser diode oscillation will continue, if pin 62 of LA9240ML (IC8101) on the CD ASSY mounted on the $M Loading Mechanism assembly is connected to GND, or else the terminals of Q8101 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

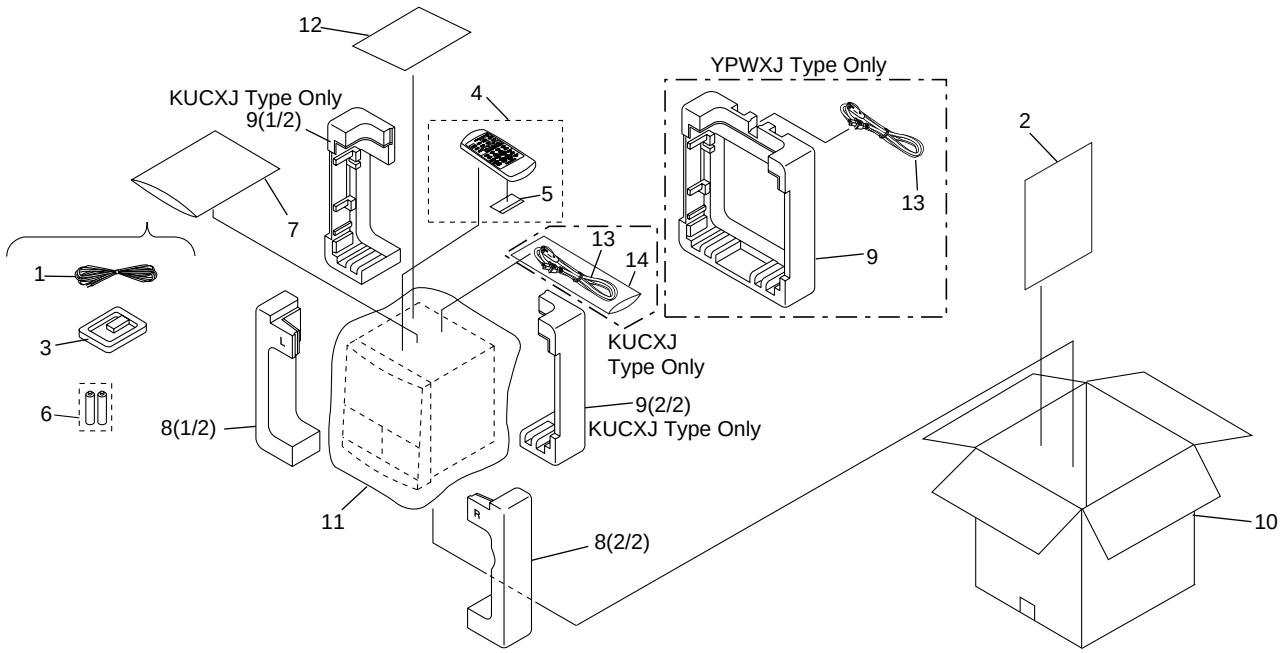
∗ : Refer to page 61.

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● **Parts marked by "NSP" and ⊗ can not be supplied.**

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING



(1) PACKING PARTS LIST

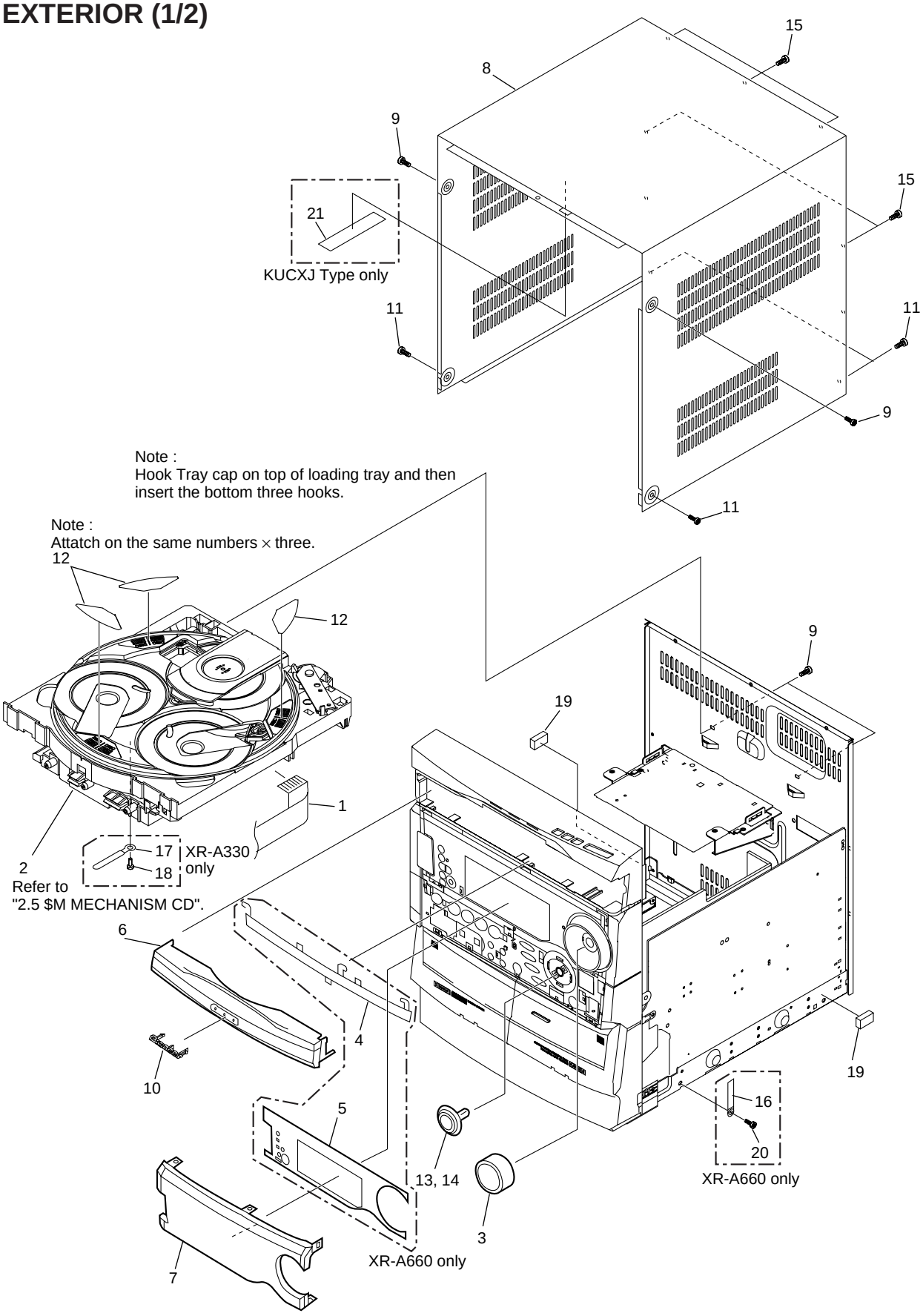
Mark	No.	Description	Part No.
	1	FM Antenna	ADH7004
	2	Operating Instructions (English/French)	XRE3012
	3	AM Loop Antenna	XTB3001
	4	Remote Control Unit (CU-XR048)	XZN3006
	5	Battery Cover	AZA7204
NSP	6	Dry Cell Battery (R6P, AA)	VEM-013
	7	Polyethylene Bag	Z21-038
	8	Front Pad	See Contrast table (2)
	9	Rear Pad	See Contrast table (2)
	10	Packing Case	See Contrast table (2)
	11	Packing Sheet	AHG7049
NSP	12	Warranty Card	See Contrast table (2)
⚠	13	Power Cord	See Contrast table (2)
NSP	14	Polyethylene Bag	See Contrast table (2)

(2) CONTRAST TABLE

XR-A660/KUCXJ, YPWXJ, XR-A330/KUCXJ and YPWXJ are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			XR-A660 /KUCXJ	XR-A660 /YPWXJ	XR-A330 /KUCXJ	XR-A330 /YPWXJ	
	8	Front Pad	XHA3003	XHA3007	XHA3003	XHA3007	
	9	Rear Pad	XHA3004	XHA3008	XHA3004	XHA3008	
	10	Packing Case	XHD3045	XHD3044	XHD3063	XHD3062	
NSP	12	Warranty Card	ARY7023	ARY7027	ARY7023	ARY7027	
⚠	13	Power Cord	ADG7022	ADG1160	ADG7022	ADG1160	
NSP	14	Polyethylene Bag	AHG7033	Not used	AHG7033	Not used	

2.2 EXTERIOR (1/2)



(1) EXTERIOR (1/2) PARTS LIST

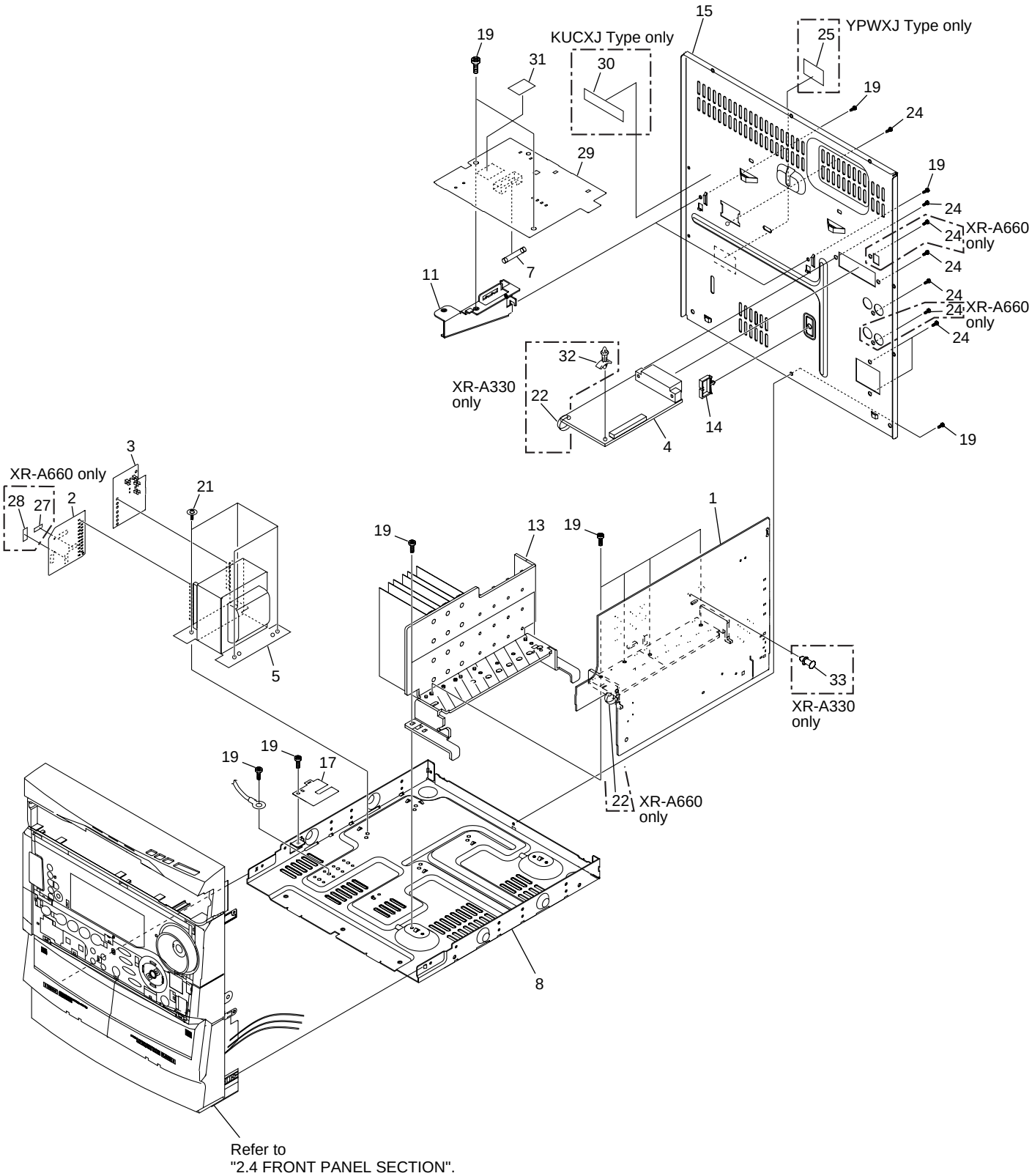
Mark	No.	Description	Part No.
	1	F.F.C/30V	See Contrast table (2)
NSP	2	$M Mechanism CD	See Contrast table (2)
	3	Volume Knob	See Contrast table (2)
	4	FL Cover A	See Contrast table (2)
	5	FL Cover B	See Contrast table (2)
	6	Tray Cap	See Contrast table (2)
	7	Display Panel	See Contrast table (2)
	8	Bonnet Case	See Contrast table (2)
	9	Screw	BPZ30P100FZK
	10	Pioneer Badge	AZN3049
	11	Screw	VBT30P080FZK
	12	Disc Label	XAX3127
	13	Jog Knob Assy	See Contrast table (2)
	14	Jog Knob	See Contrast table (2)
	15	Screw	BCZ30P080FZK
	16	Cord Clamper	See Contrast table (2)
NSP	17	Cord Stopper	See Contrast table (2)
	18	Push Rivet	See Contrast table (2)
	19	Cushion Rubber	XEB3002
	20	Screw	VBZ30P080FZK
	21	65 Label	See Contrast table (2)

(2) CONTRAST TABLE

XR-A660/KUCXJ, YPWXJ, XR-A330/KUCXJ and YPWXJ are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			XR-A660 /KUCXJ	XR-A660 /YPWXJ	XR-A330 /KUCXJ	XR-A330 /YPWXJ	
	1	22P F.F.C/30V	XDD3018	XDD3018	Not used	Not used	
	1	20P F.F.C/30V	Not used	Not used	XDD3017	XDD3017	
NSP	2	$M Mechanism CD	XXA3006	XXA3006	XXA3005	XXA3005	
	3	Volume Knob	XAA3005	XAA3005	XAA3007	XAA3007	
	4	FL Cover A	XAK3026	XAK3026	Not used	Not used	
	5	FL Cover B	XAK3036	XAK3036	Not used	Not used	
	6	Tray Cap	XZN3047	XZN3047	XZN3048	XZN3048	
	7	Display Panel	XAK3059	XAK3020	XAK3053	XAK3030	
	8	Bonnet Case	XZN3039	XZN3039	XZN3045	XZN3045	
	13	Jog Knob Assy	XXG3023	XXG3023	Not used	Not used	
	14	Jog Knob	Not used	Not used	XAA3008	XAA3008	
	16	Cord Clamper	RNH-184	RNH-184	Not used	Not used	
NSP	17	Cord Stopper	Not used	Not used	DNF1128	DNF1128	
	18	Push Rivet	Not used	Not used	AEC7138	AEC7138	
	21	65 Lavel	ORW1069	Not used	ORW1069	Not used	

2.3 EXTERIOR (2/2)



(1) EXTERIOR (2/2) PARTS LIST

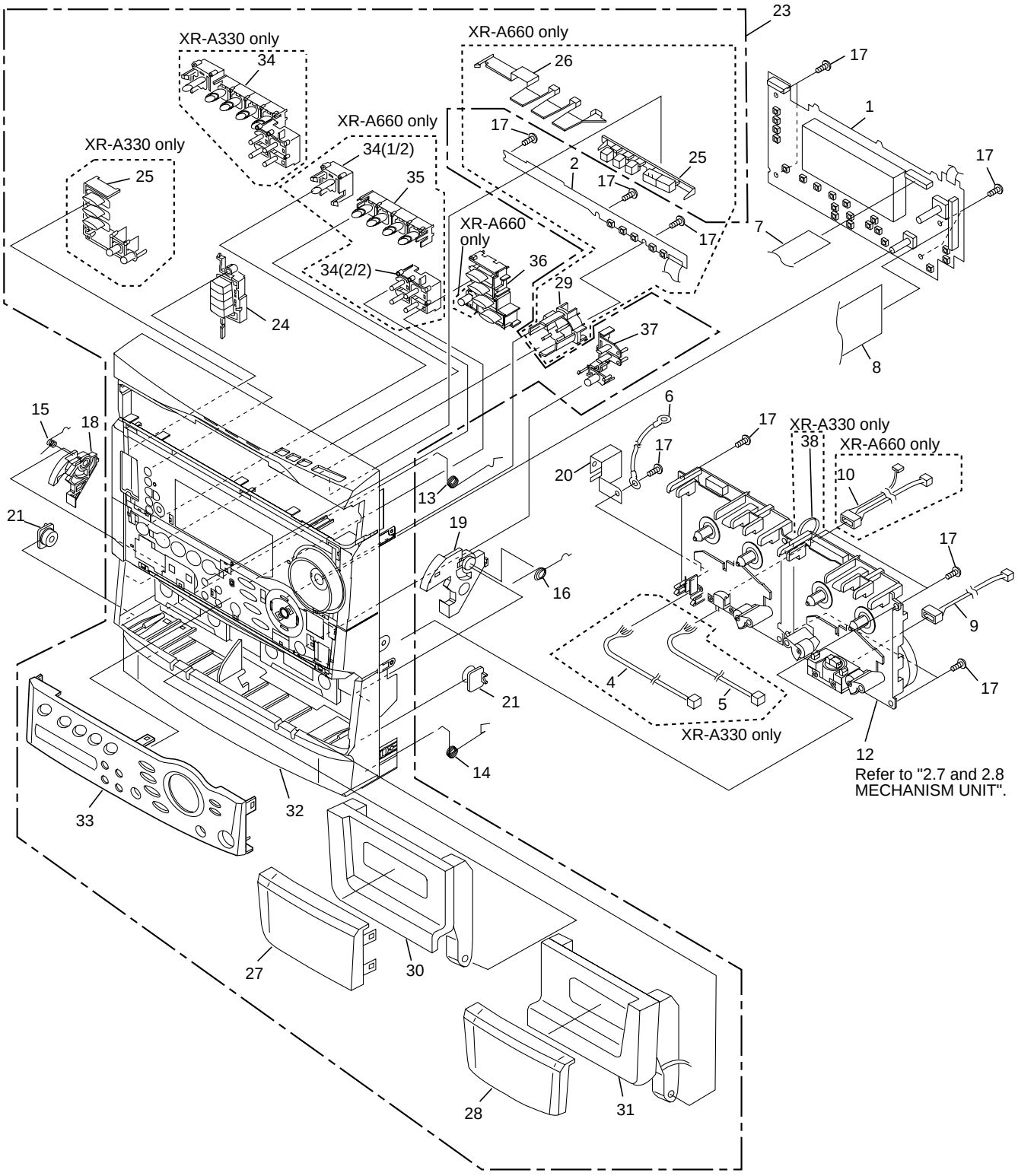
Mark	No.	Description	Part No.
⊗	1	AF Assy	See Contrast table (2)
⊗	2	SECONDARY Assy	See Contrast table (2)
⊗	3	PRIMARY Assy	See Contrast table (2)
	4	FM/AM TUNER MODULE	AXQ7065
⚠	5	T1 Power Transformer	See Contrast table (2)
	6	• • • • •	
⚠	7	FU1 Fuse	See Contrast table (2)
NSP	8	Chassis	XNA3001
	9	• • • • •	
	10	• • • • •	
	11	PCB Bracket	XNG3006
	12	• • • • •	
	13	Heat Sink	See Contrast table (2)
	14	Wire Clip	XEC3002
	15	Rear Panel	See Contrast table (2)
	16	• • • • •	
NSP	17	SUPPORT Assy	XNP3008
	18	• • • • •	
	19	Screw	VBZ30P080FZK
	20	• • • • •	
	21	Screw	ASZ40P060FMC
	22	Binder	ZCA-SKB90BK
	23	• • • • •	
	24	Screw	BPZ30P100FZK
	25	Caution Label	See Contrast table (2)
	26	• • • • •	
	27	ICP Label	See Contrast table (2)
	28	ICP Label	See Contrast table (2)
⊗	29	SUB TRANS Assy	See Contrast table (2)
	30	Fuse Caution Label	See Contrast table (2)
NSP	31	Fuse Card	See Contrast table (2)
	32	Locking Spacer	See Contrast table (2)
	33	Card Spacer	See Contrast table (2)

(2) CONTRAST TABLE

XR-A660/KUCXJ, YPWXJ, XR-A330/KUCXJ and YPWXJ are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			XR-A660 /KUCXJ	XR-A660 /YPWXJ	XR-A330 /KUCXJ	XR-A330 /YPWXJ	
⊗	1	AF Assy	XWZ3089	XWZ3089	XWZ3045	XWZ3045	
⊗	2	SECONDARY Assy	XWZ3084	XWZ3084	XWZ3046	XWZ3046	
⊗	3	PRIMARY Assy	XWZ3059	XWZ3051	XWZ3059	XWZ3051	
⚠	5	T1 Power Transformer (AC120V)	XTS3017	Not used	XTS3014	Not used	
⚠	5	T1 Power Transformer (AC240V)	Not used	XTS3015	Not used	XTS3012	
⚠	7	FU1 Fuse (5A)	REK1083	Not used	Not used	Not used	
⚠	7	FU1 Fuse (T2A)	Not used	AEK1057	Not used	Not used	
⚠	7	FU1 Fuse (4A)	Not used	Not used	REK1082	Not used	
⚠	7	FU1 Fuse (T1.6A)	Not used	Not used	Not used	AEK1056	
	13	Heat Sink	XNH3002	XNH3002	XNH3003	XNH3003	
	15	Rear Panel	XNC3009	XNC3024	XNC3015	XNC3023	
	25	Caution Label	Not used	PRW1018	Not used	PRW1018	
	27	ICP Label	XAX3120	XAX3120	Not used	Not used	
	28	ICP Label	XAX3121	XAX3121	Not used	Not used	
⊗	29	SUB TRANS Assy	XWZ3060	XWZ3052	XWZ3060	XWZ3052	
	30	Fuse Caution Label	XAX3122	Not used	XAX3123	Not used	
NSP	31	Fuse Card	AAX7097	AAX2357	AAX2343	AAX2377	
	32	Locking Spacer	Not used	Not used	XEC3009	XEC3009	
	33	Card Spacer	Not used	Not used	XEC3008	XEC3008	

2.4 FRONT PANEL SECTION



(1) FRONT PANEL SECTION PARTS LIST

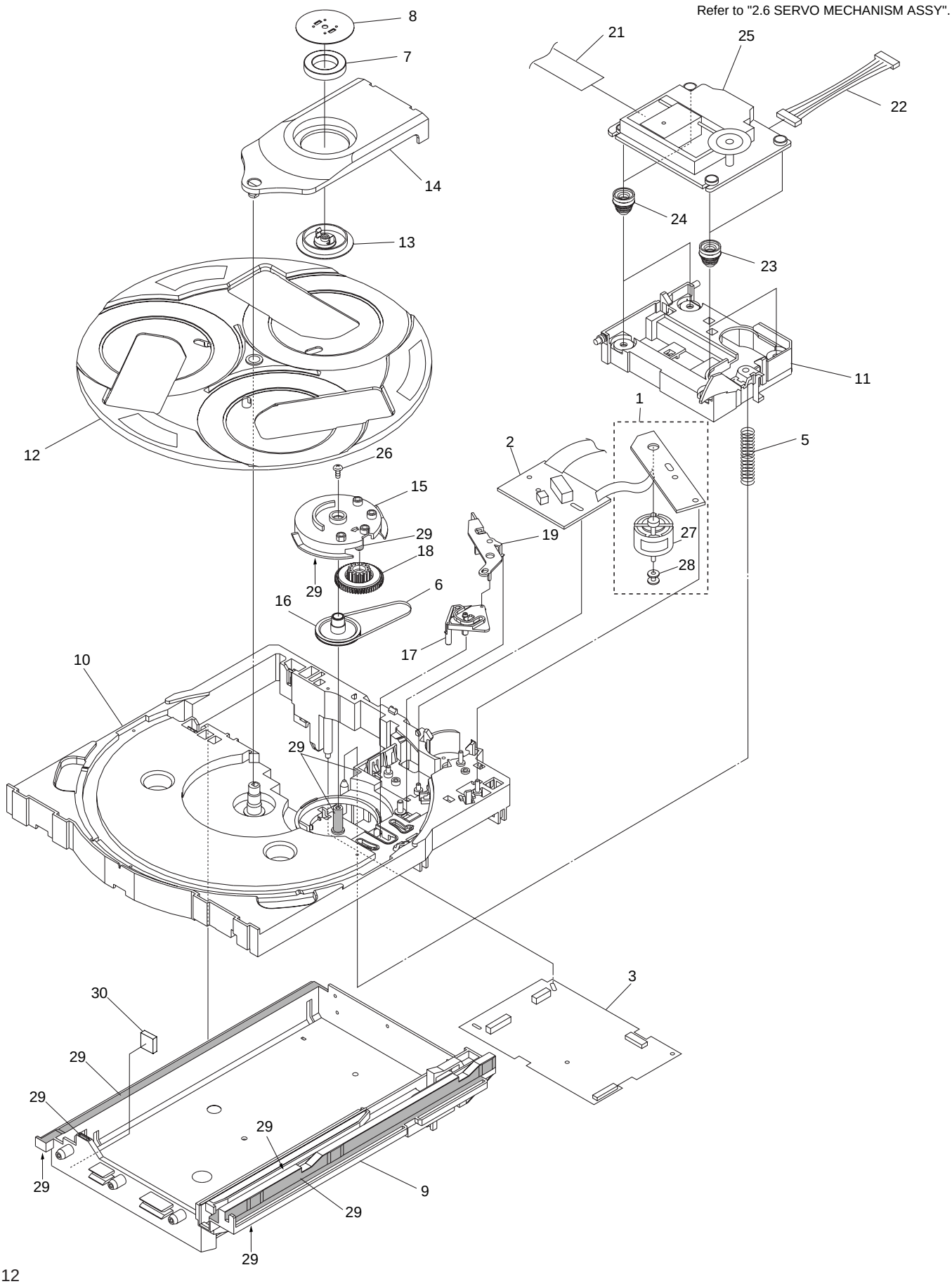
Mark	No.	Description	Part No.
⊗	1	DISPLAY Assy	See Contrast table (2)
⊗	2	CD SW LED Assy	See Contrast table (2)
	3	• • • • •	
	4	Connector Assy 2P	See Contrast table (2)
	5	Connector Assy 3P	See Contrast table (2)
NSP	6	Cord With Plug	DE007VE0
	7	Flexible Cable	See Contrast table (2)
	8	Flexible Cable 38P	XDD3004
	9	Connector Assy 3P	See Contrast table (2)
	10	Connector Assy 5P	See Contrast table (2)
	11	• • • • •	
	12	Mechanism Unit	See Contrast table (2)
	13	Door Spring L	XBH3001
	14	Door Spring R	XBH3002
	15	Latch Spring L	ABH7130
	16	Latch Spring R	ABH7131
	17	Screw	BPZ30P100FZK
	18	Latch Mold L	XMR3001
	19	Latch Mold R	XMR3002
	20	GND Plate B	XNG3005
	21	Damper Assy	AXA7052
	22	• • • • •	
NSP	23	Front Panel Assy	See Contrast table (2)
	24	Function Button	See Contrast table (2)
	25	CD Button	See Contrast table (2)
	26	CD Lens	See Contrast table (2)
	27	Deck Lens L	XZN3035
	28	Deck Lens R	XZN3036
NSP	29	Jog Lens	See Contrast table (2)
	30	Door Pocket L	See Contrast table (2)
	31	Door Pocket R	See Contrast table (2)
	32	Front Panel	See Contrast table (2)
	33	Sub Panel	See Contrast table (2)
	34	Power Button	See Contrast table (2)
	35	Play Button	See Contrast table (2)
	36	S.C. Button	See Contrast table (2)
	37	TIMER Button	See Contrast table (2)
	38	Binder	See Contrast table (2)

(2) CONTRAST TABLE

XR-A660/KUCXJ, YPWXJ, XR-A330/KUCXJ and YPWXJ are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			XR-A660 /KUCXJ	XR-A660 /YPWXJ	XR-A330 /KUCXJ	XR-A330 /YPWXJ	
⊗	1	DISPLAY Assy	XWZ3092	XWZ3110	XWZ3058	XWZ3047	
⊗	2	CD SW LED Assy	XWZ3086	XWZ3086	Not used	Not used	
	4	Connector Assy 2P	Not used	Not used	XDE3012	XDE3012	
	5	Connector Assy 3P	Not used	Not used	XDE3011	XDE3011	
	7	Flexible Cable 19P	XDD3009	XDD3009	Not used	Not used	
	7	Flexible Cable 17P	Not used	Not used	XDD3010	XDD3010	
	9	Connector Assy 3P	XDE3001	XDE3001	XDE3009	XDE3009	
	10	Connector Assy 5P	XDE3002	XDE3002	Not used	Not used	
	12	Mechanism Unit	XYM3003	XYM3003	XYM3002	XYM3002	
NSP	23	Front Panel Assy	XXG3014	XXG3014	XXG3011	XXG3011	
	24	Function Button	XZN3020	XZN3020	XZN3021	XZN3021	
	25	CD Button	XZN3018	XZN3018	XZN3019	XZN3019	
	26	CD Lens	XZN3037	XZN3037	Not used	Not used	
NSP	29	Jog Lens	XAK3025	XAK3025	Not used	Not used	
	30	Door Pocket L	XZN3013	XZN3013	XZN3014	XZN3014	
	31	Door Pocket R	XZN3015	XZN3015	XZN3016	XZN3016	
	32	Front Panel	XZN3011	XZN3011	XZN3012	XZN3012	
	33	Sub Panel	XZN3031	XZN3031	XZN3033	XZN3033	
	34	Power Button	XZN3022	XZN3022	XZN3023	XZN3023	
	35	Play Button	XZN3024	XZN3024	Not used	Not used	
	36	S.C. Button	XZN3025	XZN3025	XZN3027	XZN3027	
	37	TIMER Button	XZN3029	XZN3029	XZN3030	XZN3030	
	38	Binder	Not used	Not used	ZCA-SKB90BK	ZCA-SKB90BK	

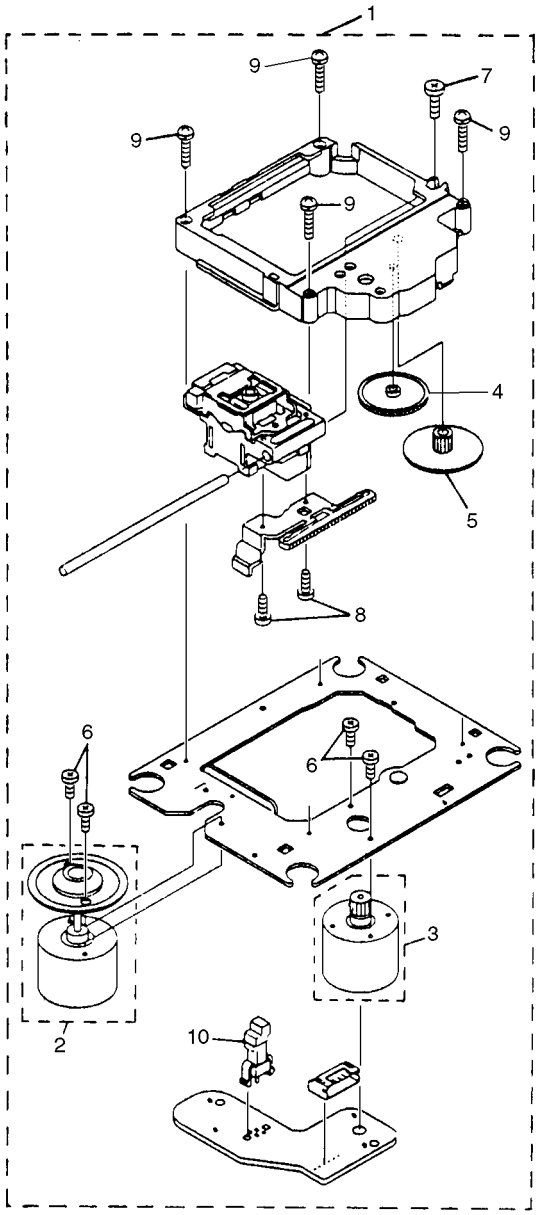
2.5 $M MECHANISM CD



● $M MECHANISM CD PARTS LIST

Mark	No.	Description	Part No.
⊗	1	MOTOR Assy	AWZ8428
NSP	2	SW Assy	AWZ8429
⊗	3	CD Assy (XR-A660)	XWZ3141
⊗	3	CD Assy (XR-A330)	XWZ3050
	4	• • • • •	
	5	Servo Spring	ABH7126
	6	Belt	AEB7072
	7	Clamp Magnet	AMF7001
	8	Yoke	ANB7067
	9	Mecha Base	ANW7125
	10	Loading Tray	ANW7088
	11	Servo Base	ANW7089
	12	Rotary Tray	ANW7113
	13	Clamper	ANW7091
	14	Clamper Holder	ANW7092
	15	Main Cam	ANW7093
	16	Gear Pully	ANW7094
	17	Lock Lever	ANW7095
	18	Planet Gear	ANW7096
	19	Actuater	ANW7097
	20	• • • • •	
	21	15P F.F.C/30V	ADD7038
	22	Connector Assy (6P)	ADE7010
	23	Float Rubber A	AEB7063
	24	Float Rubber B	AEB7066
	25	Servo Mechanism Assy	AXA7039
	26	Screw	IPZ30P080FMC
	27	Carriage Motor	VXM1033
	28	Motor Pulley	PNW1634
	29	Ha Narl	GEM1016
	30	Cushion Rubber	XEB3003

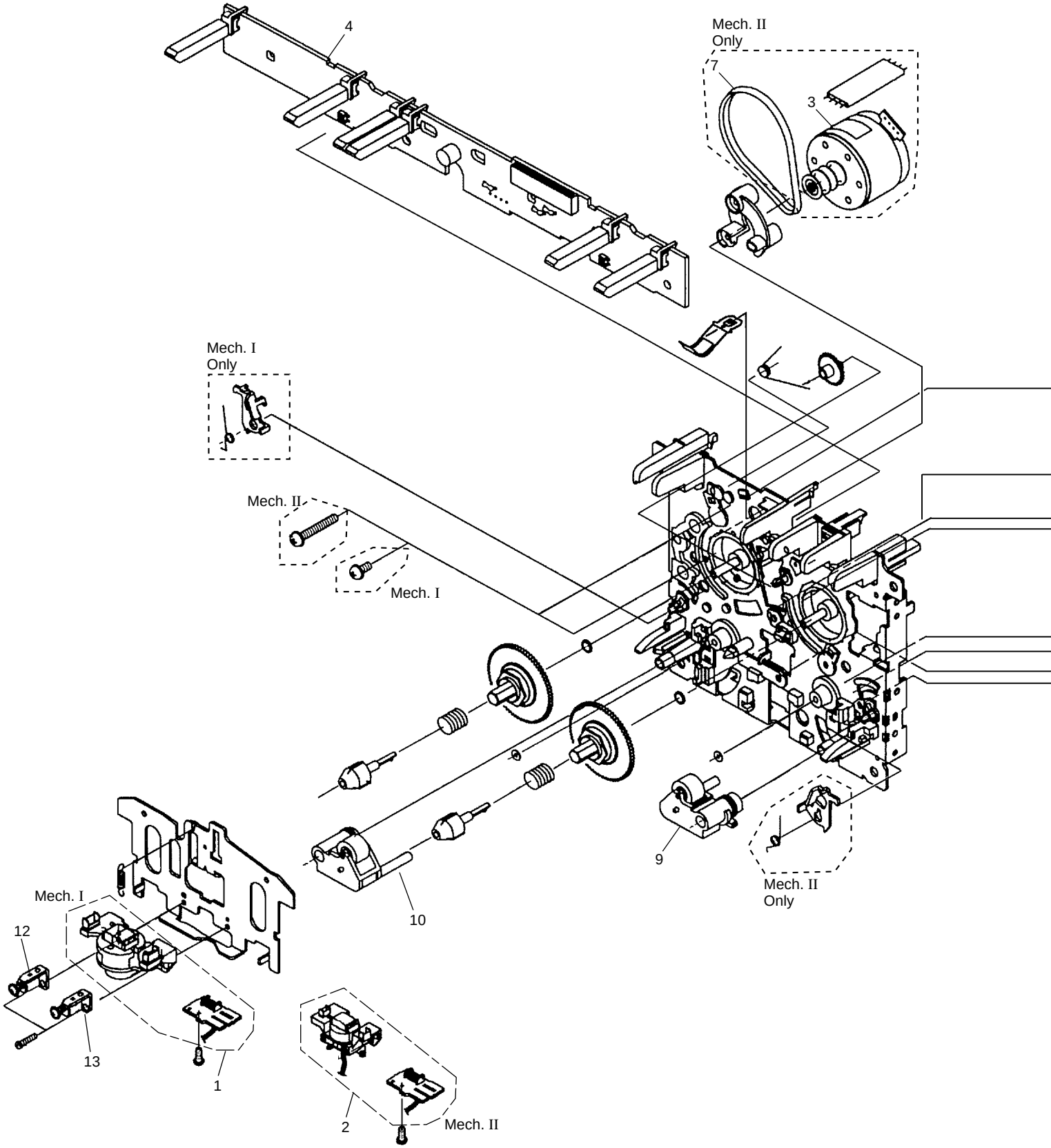
2.6 SERVO MECHANISM ASSY

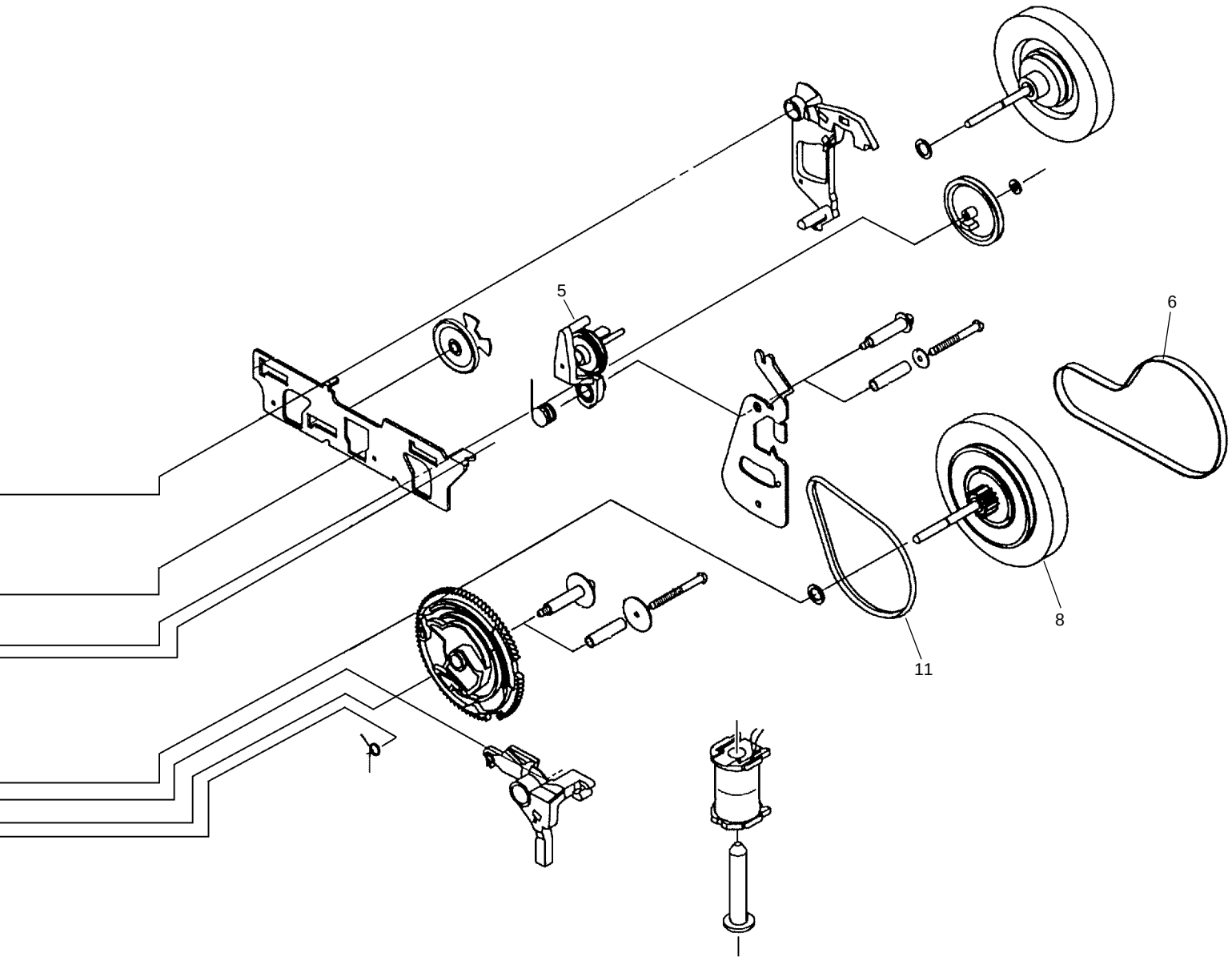


● SERVO MECHANISM ASSY PARTS LIST

Mark	No.	Description	Part No.
	1	Servo Mechanism	AXA7039
	2	SPINDLE MOTOR Assy	AEA7009
	3	SLEAD MOTOR Assy	AEA7010
	4	Gear A	AEA7013
	5	Gear B	AEA7014
	6	Screw	AEA7015
	7	Screw	AEA7016
	8	Screw	AEA7017
	9	Screw	AEA7018
	10	Leaf Switch	AEA7011

2.7 MECHANISM UNIT (XR-A660)

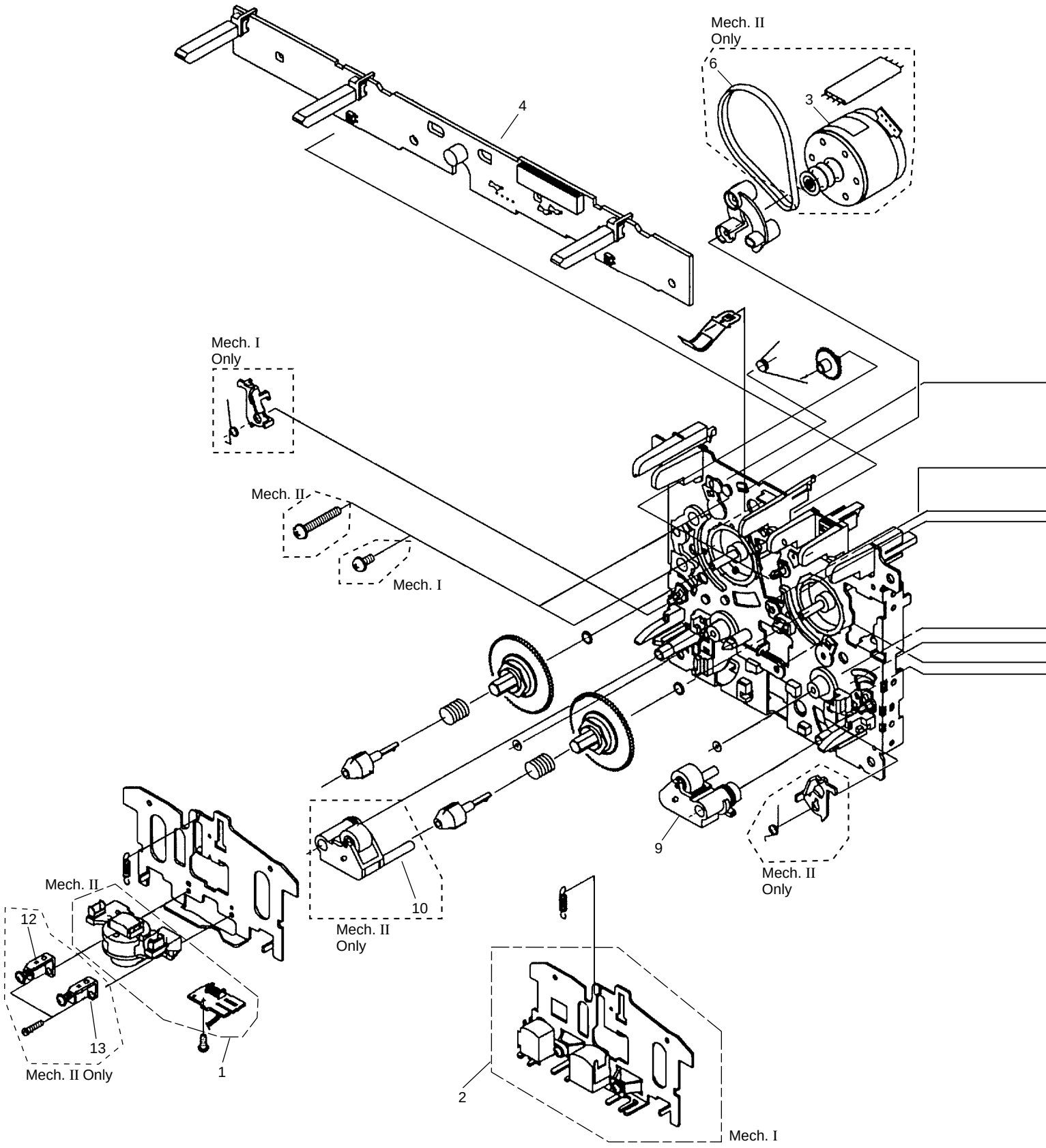


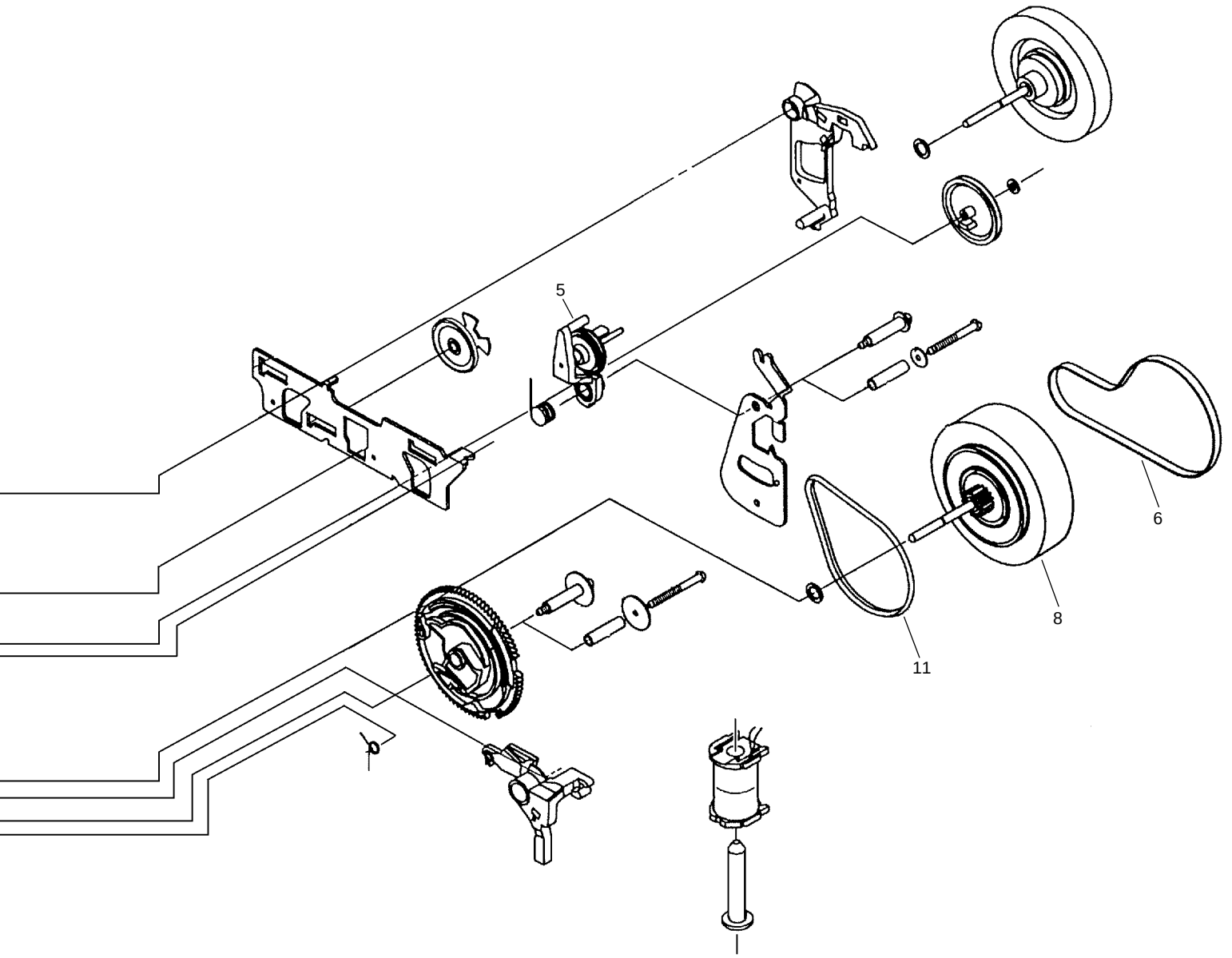


● MECHANISM UNIT PARTS LIST

Mark	No.	Description	Part No.
	1	Plate HD BLK (Mech. I)	F513-819
	2	Plate HD BLK (Mech. II)	F513-811
	3	Motor Main BLK (Mech. II only)	F525-324
	4	PCB Control BLK	F567-621
	5	Clutch Assy BLK	F522-037
	6	Main Belt	FF17G-31
	7	Joint Belt 113 (Mech. II only)	FF19D-21
	8	Clutch Assy BLK	F522-045
	9	Roller Pinch BLK R	F514-129
	10	Roller Pinch BLK L	F514-130
	11	F/R Belt	FF18W-12
	12	Plate Base BLK	F512-127
	13	Plate Base BLK	F512-128

2.8 MECHANISM UNIT (XR-A330)

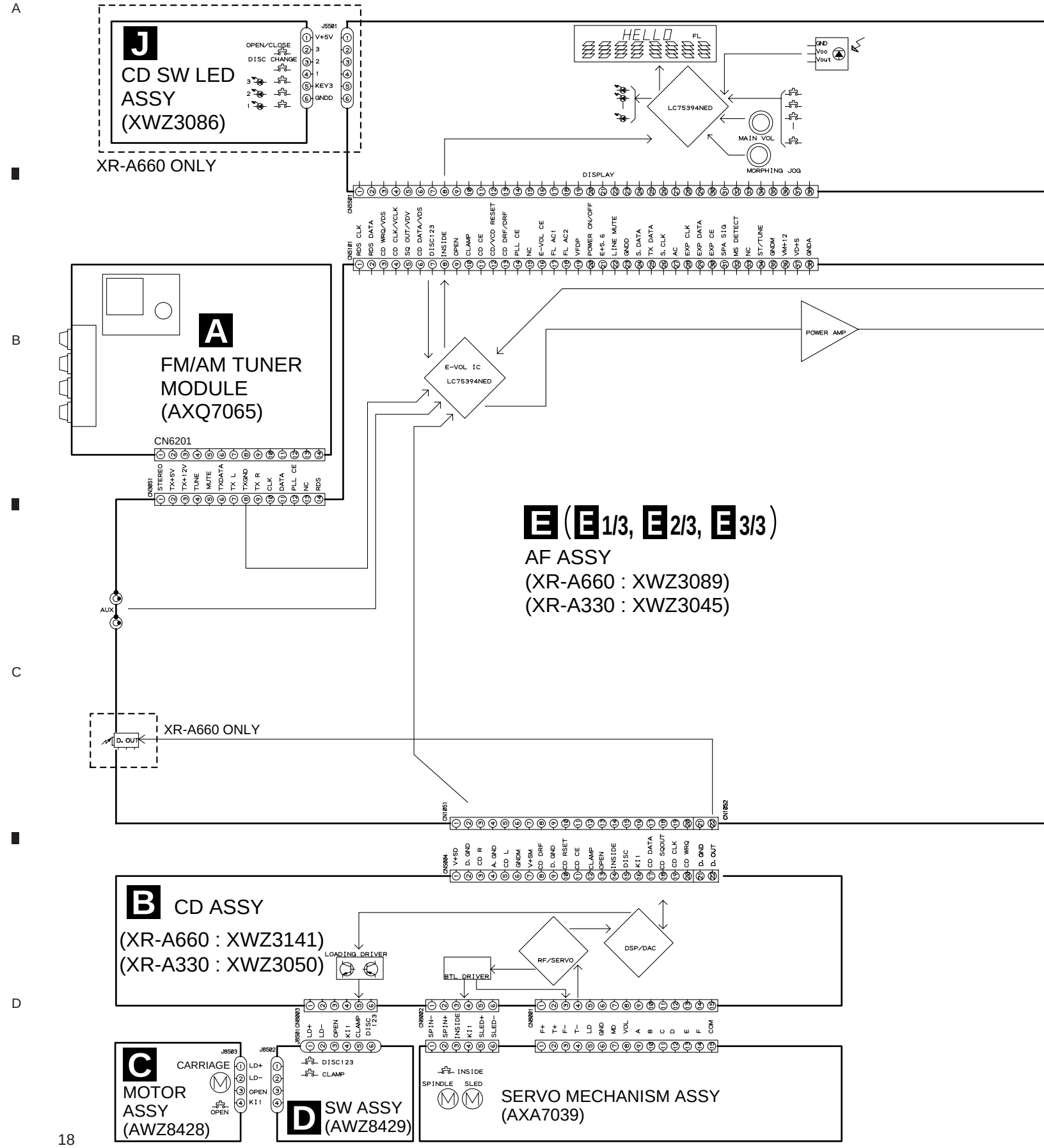




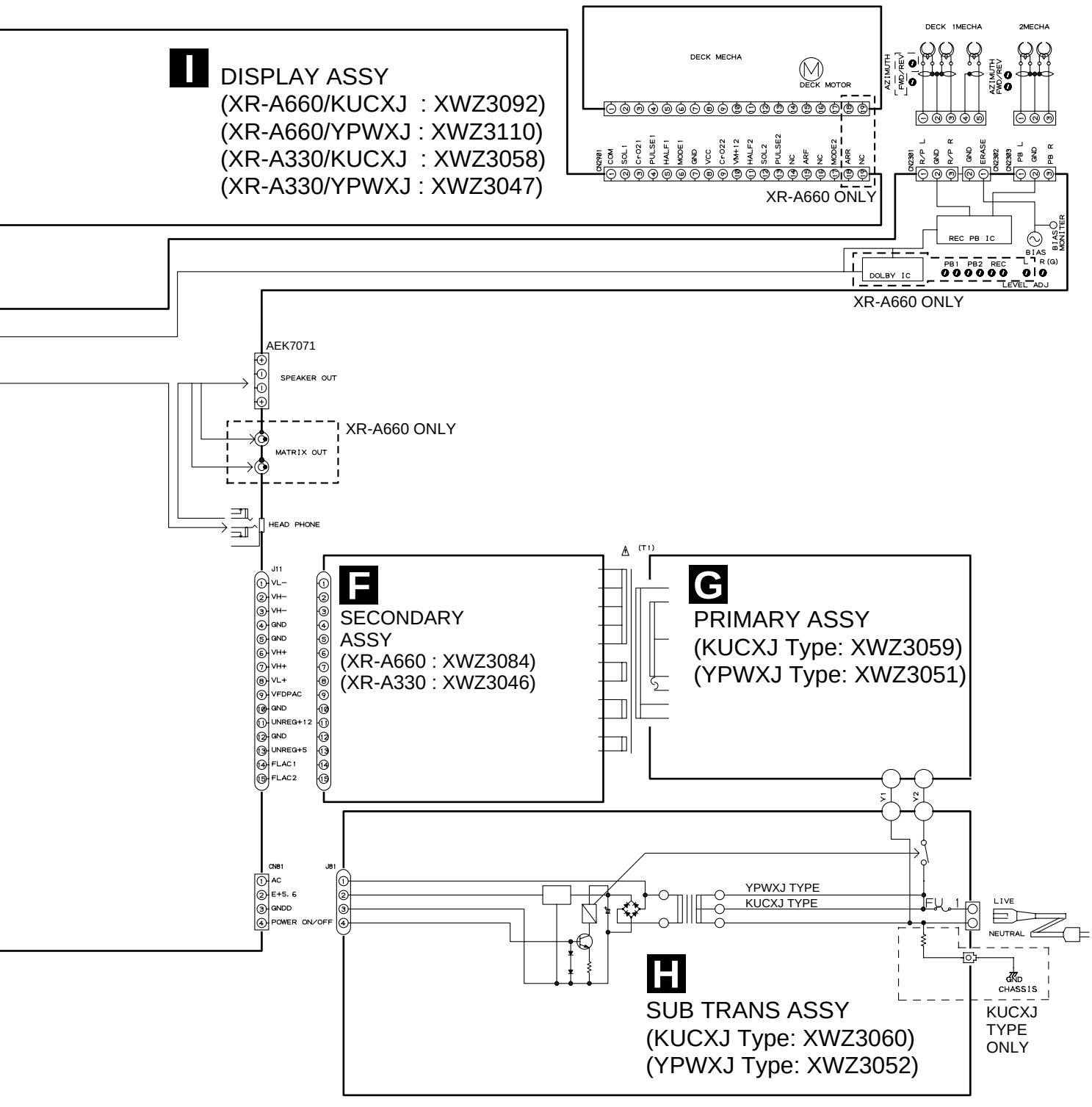
● MECHANISM UNIT PARTS LIST

Mark	No.	Description	Part No.
	1	Plate HD BLK (Mech. II)	F513-811
	2	Plate HD BLK (Mech. I)	F513-825
	3	Motor Main BLK (Mech. II only)	F525-324
	4	PCB Control BLK	F567-622
	5	Clutch Assy BLK	F522-037
	6	Main Belt	FF17G-31
	7	• • • • •	
	8	Clutch Assy BLK (Mech. II)	F522-045
	8	Clutch Assy BLK (Mech. I)	F522-038
	9	Roller Pinch BLK R (Mech. II)	F514-129
	9	Roller Pinch BLK R (Mech. I)	F514-131
	10	Roller Pinch BLK L (Mech. II only)	F514-130
	11	F/R Belt	FF18W-12
	12	Plate Base BLK (Mech. II only)	F512-127
	13	Plate Base BLK (Mech. II only)	F512-128

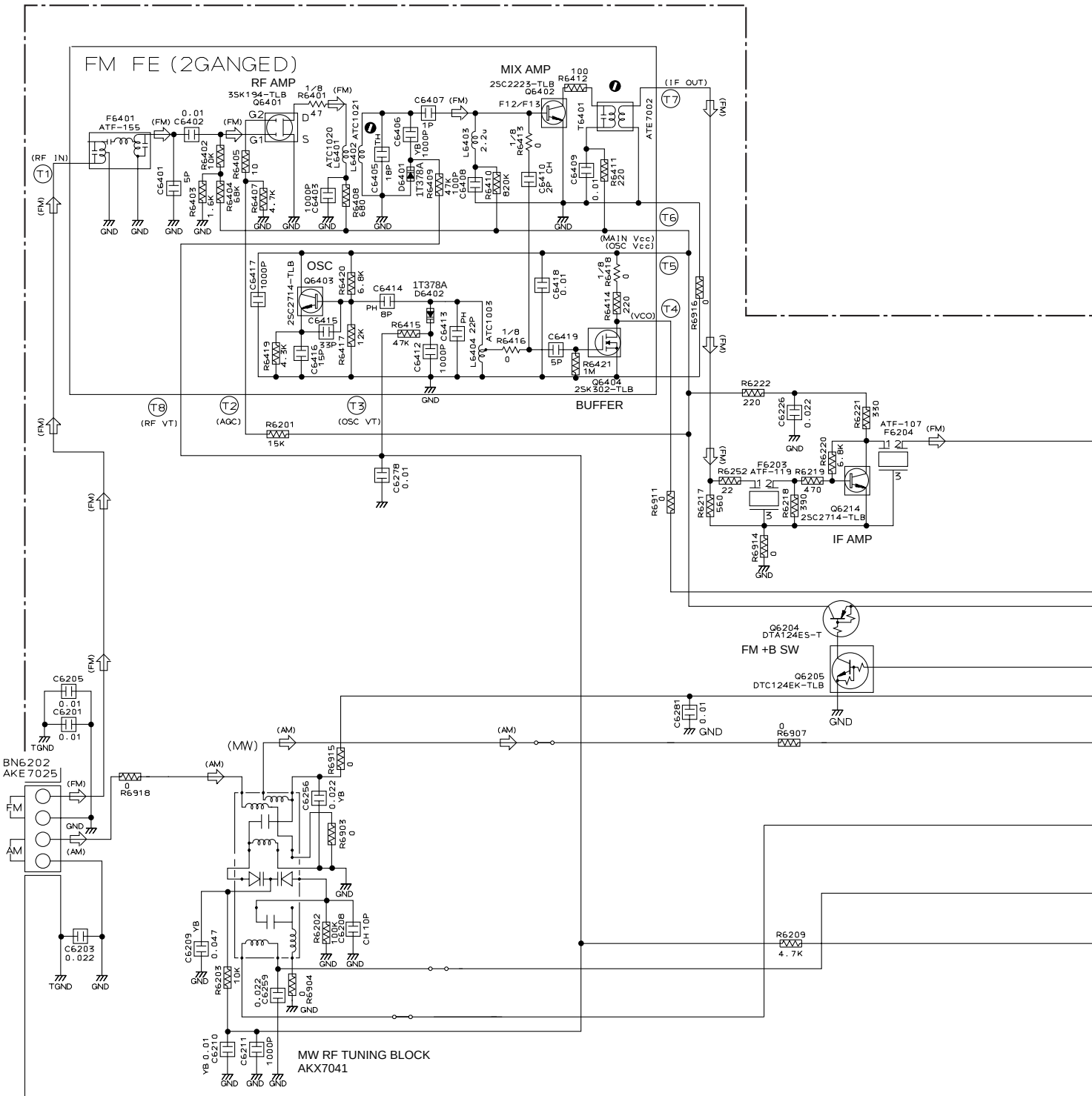
3. SCHEMATIC DIAGRAM
3.1 OVERALL WIRING DIAGRAM



Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



3.2 FM/AM TUNER MODULE



A FM/AM TUNER MODULE (AXQ7065)

SIGNAL ROUTE

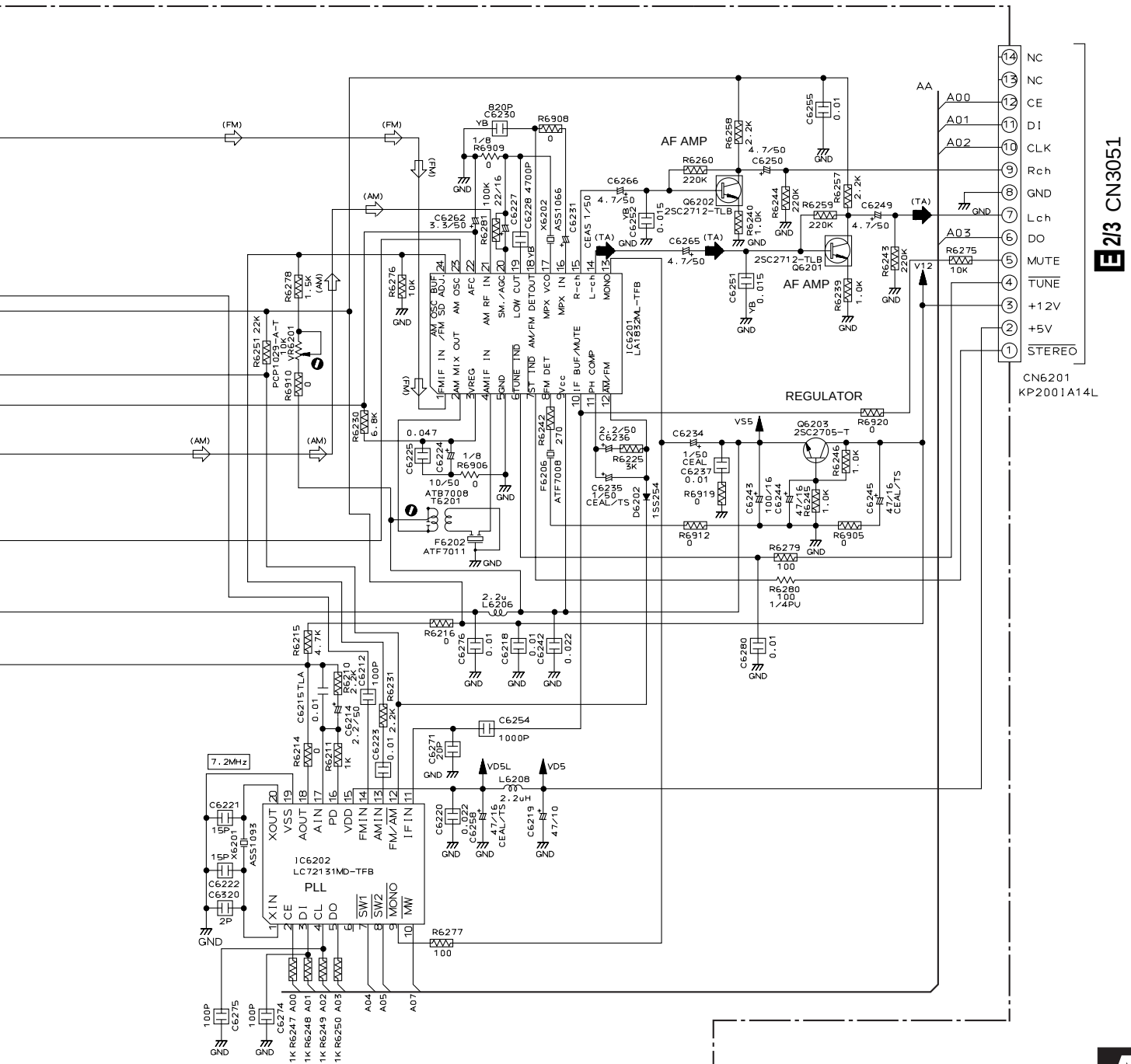
(AM) : AM SIGNAL ROUTE

(FM) : FM SIGNAL ROUTE

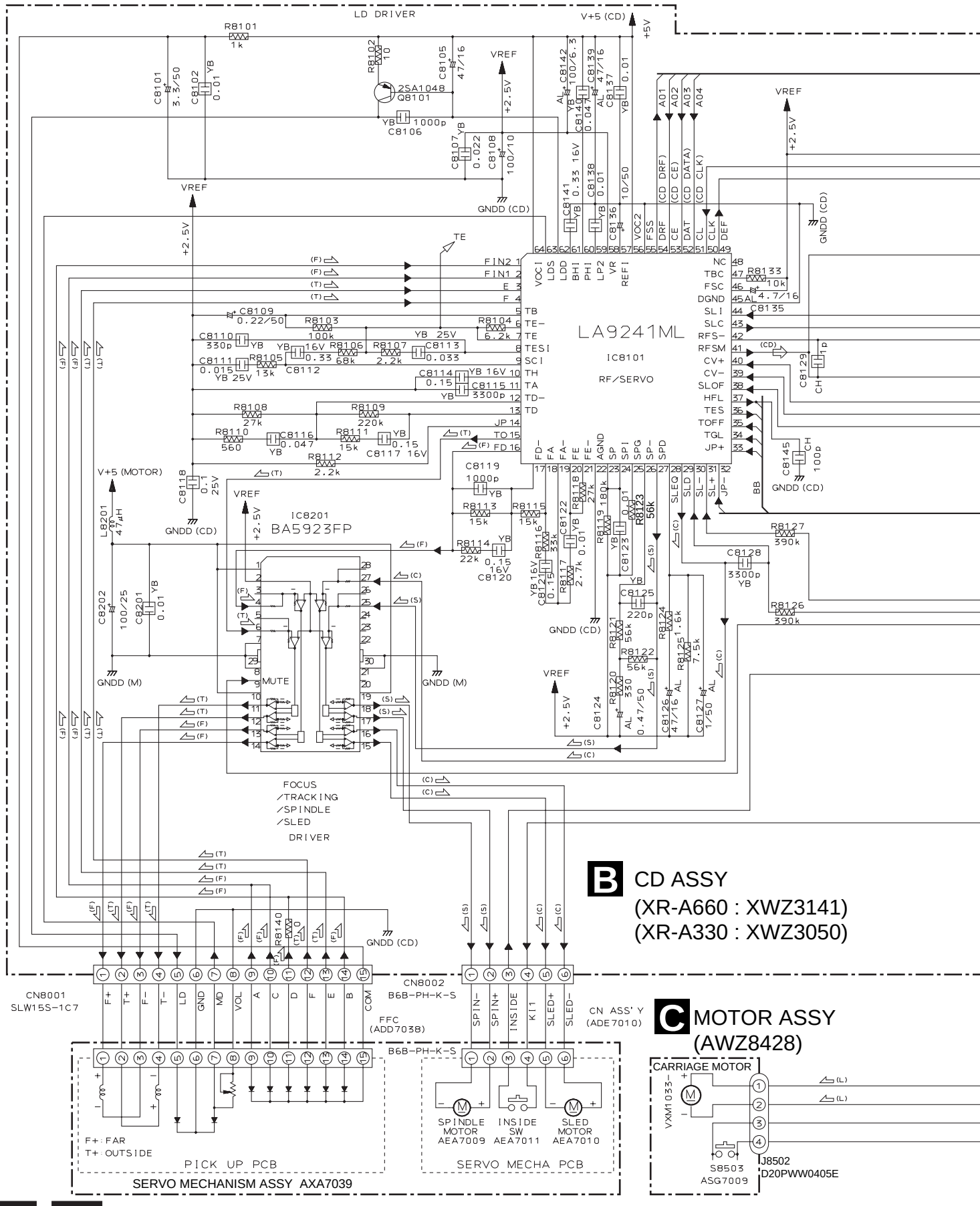
(TA) : TUNER AUDIO SIGNAL ROUTE

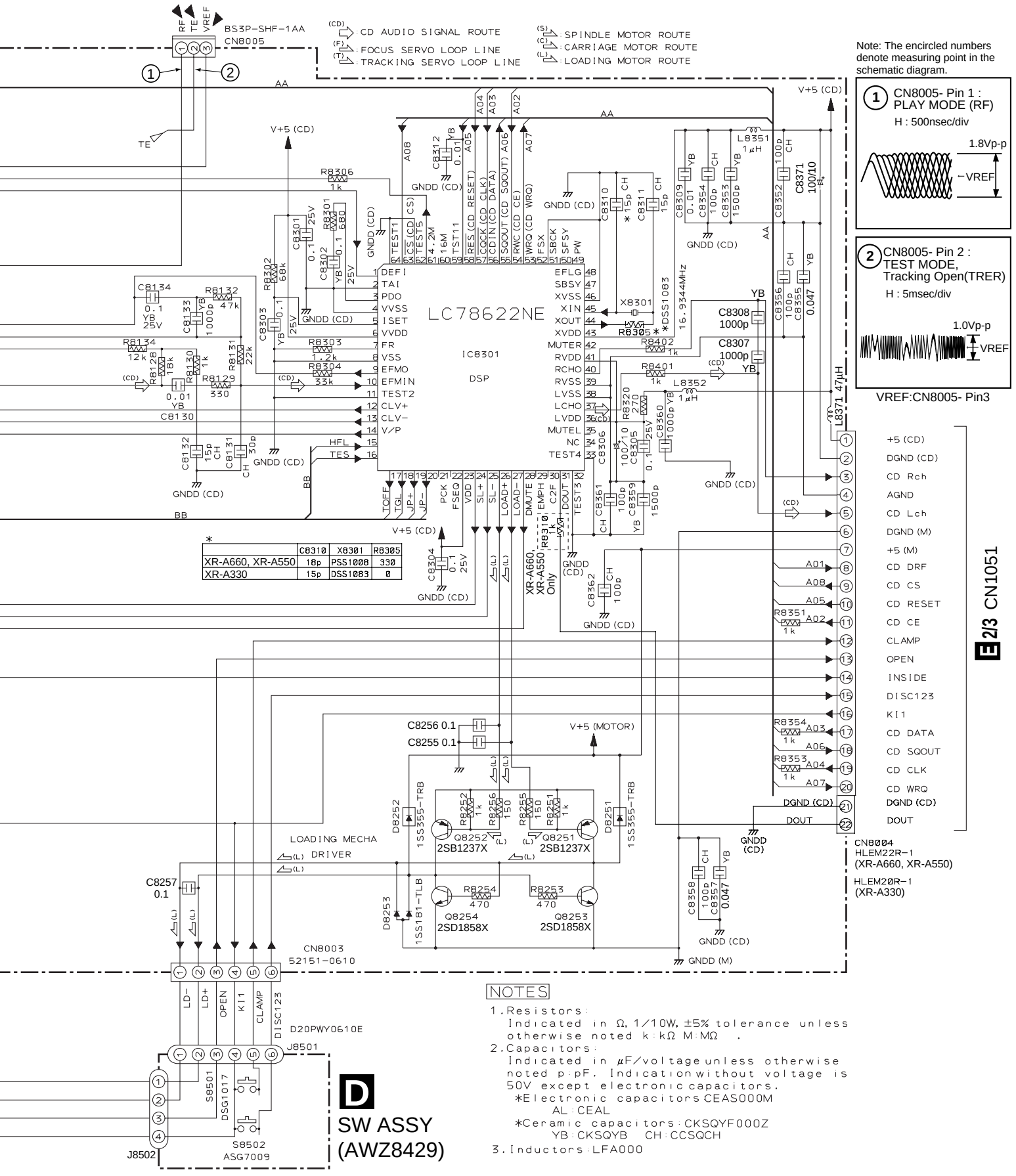
Notes

1. RESISTORS
   Indicated in Ω, 1/10W±5% Tolerance unless otherwise noted K:KΩ, M:MΩ.
2. CAPACITORS
   Indicated in Capacity(μF)/VOLTAGE(V) unless otherwise noted P:PF.
3. DIODES
   No mark diode is 1SS254.



3.3 CD, MOTOR and SW ASSEMBLIES





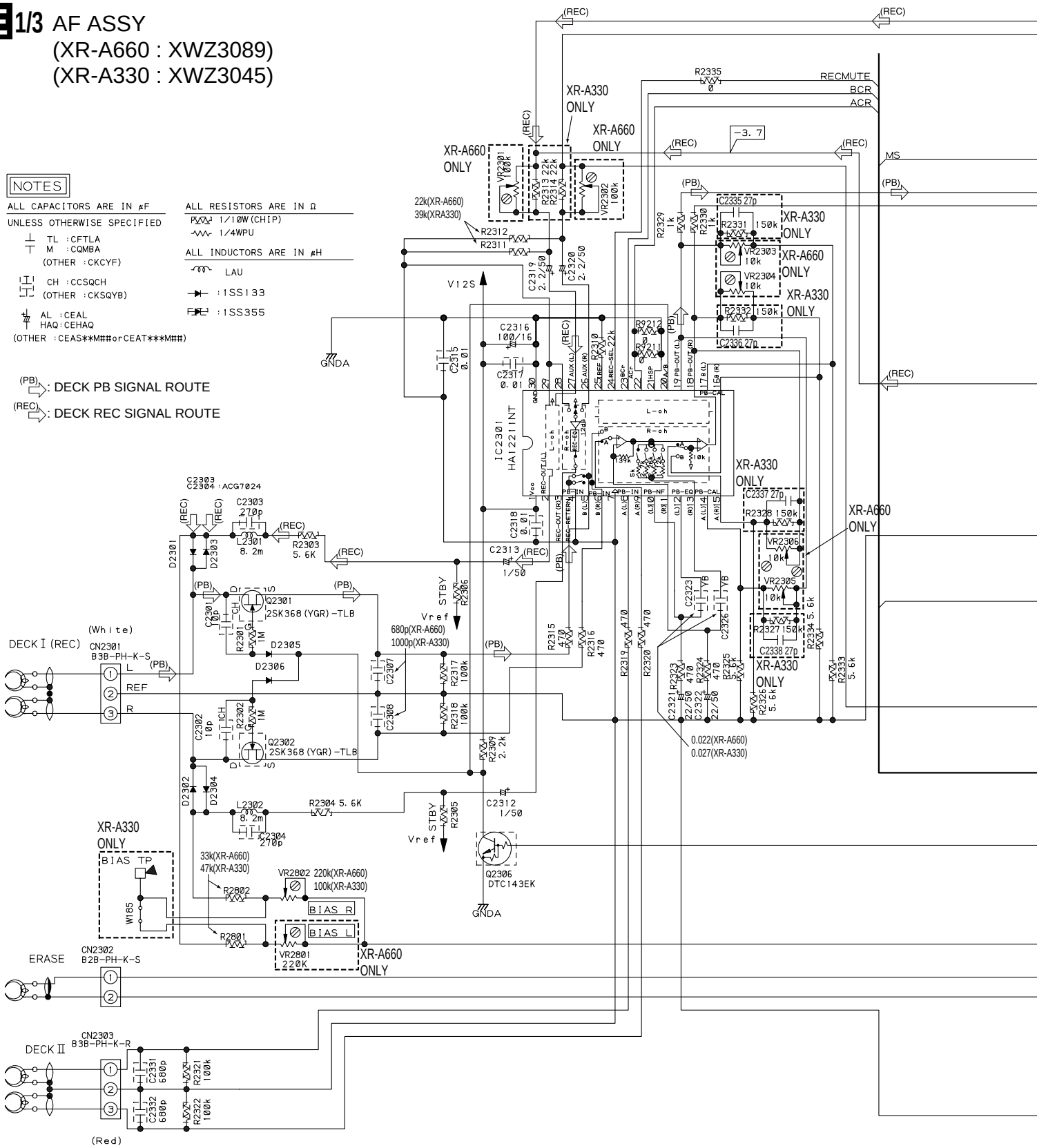
*	C8310	X8301	R8305
XR-A660, XR-A550	18p	PSS1008	330
XR-A330	15p	DSS1083	0

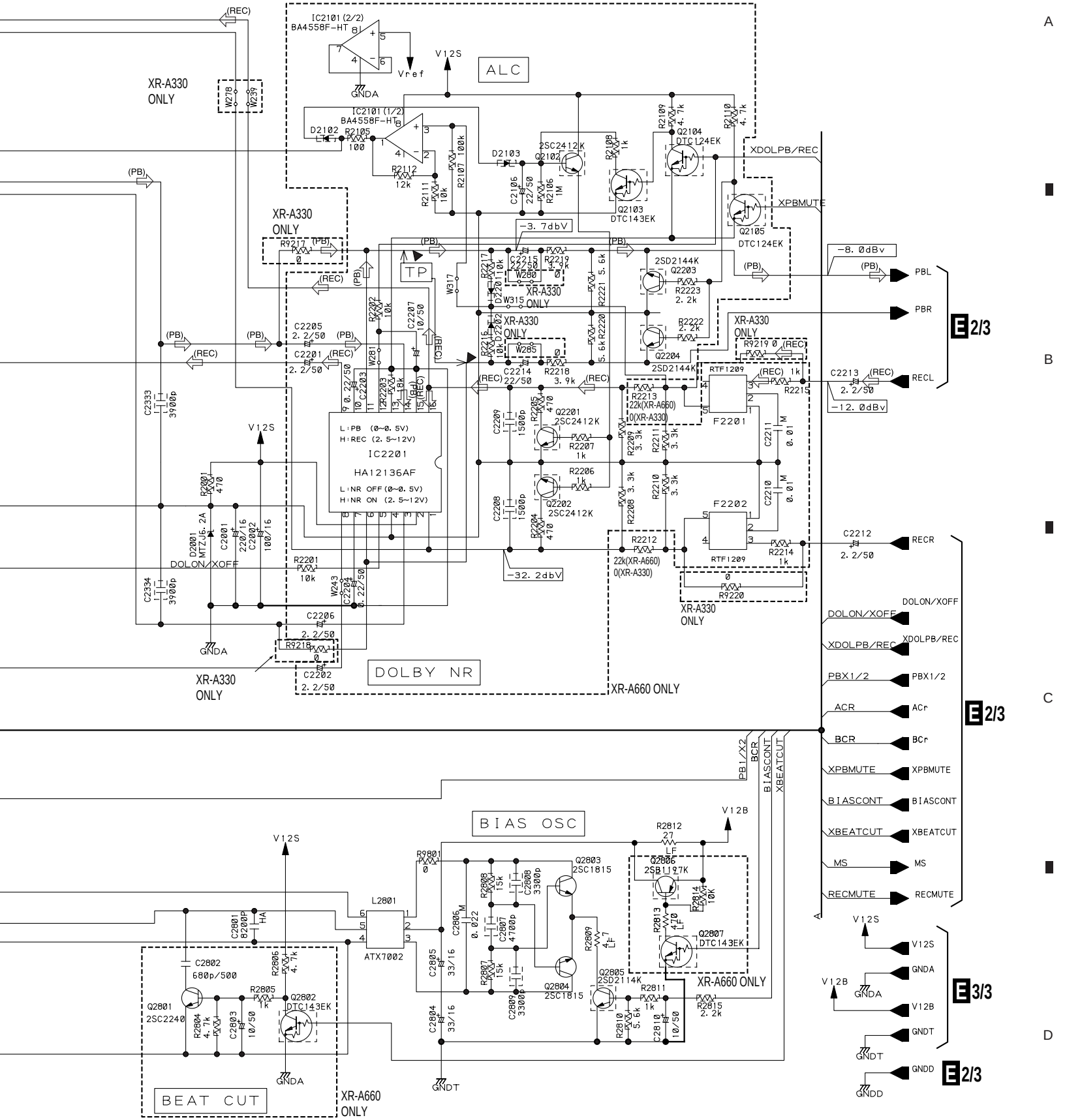
NOTES

1. Resistors:
   Indicated in Ω, 1/10W, ±5% tolerance unless otherwise noted k:kΩ M:MΩ .
2. Capacitors:
   Indicated in μF/voltage unless otherwise noted p:pF. Indication without voltage is 50V except electronic capacitors.
   *Electronic capacitors CEAS000M
   AL:CEAL
   *Ceramic capacitors:CKSQYF000Z
   YB:CKSQYB CH:CCSQCH
3. Inductors:LFA000

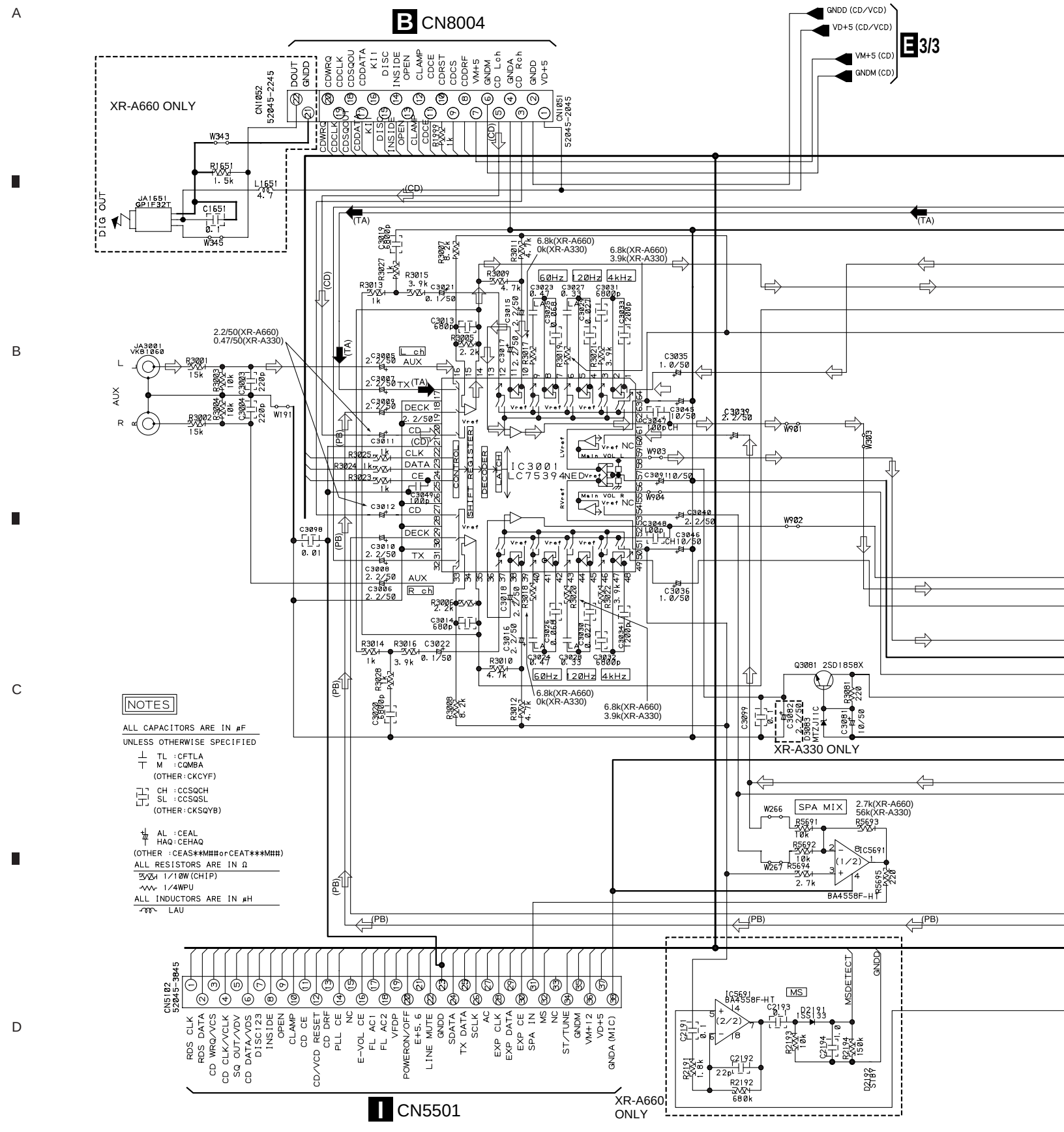
3.4 AF ASSY (1/3)

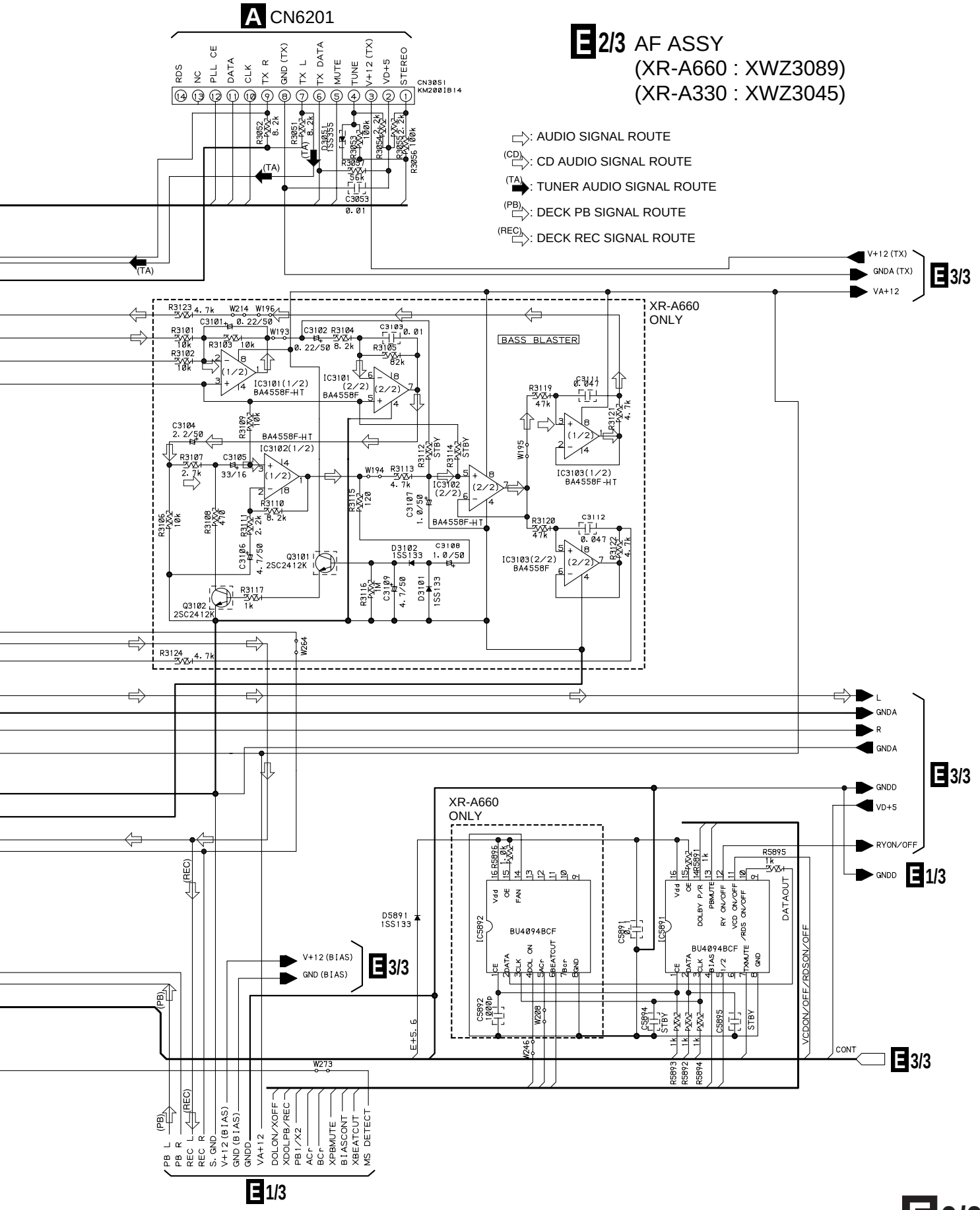
E 1/3 AF ASSY
(XR-A660 : XWZ3089)
(XR-A330 : XWZ3045)



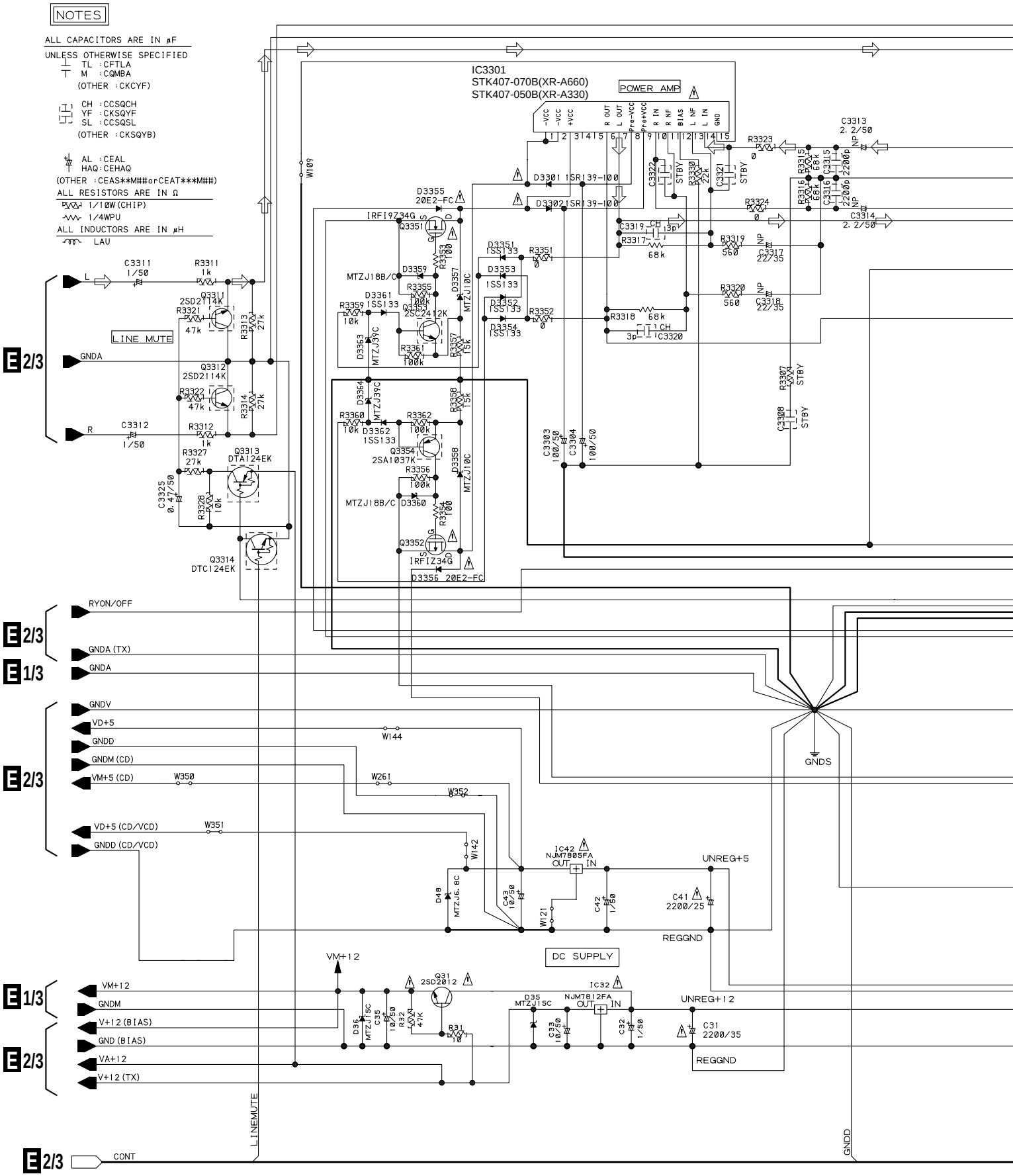

ALC
TP
DOLBY NR
BIAS OSC
BEAT CUT
IC2101 (2/2) BA4558F-HT
IC2101 (1/2) BA4558F-HT
IC2201 HA12136AF
L:PB (0~0.5V) H:REC (2.5~12V)
L:NR OFF (0~0.5V) H:NR ON (2.5~12V)
ATX7002
V12S
V12B
Vref
GNDA
GNDT
GNDD
XR-A330 ONLY
XR-A660 ONLY
-3.7dbV
-32.2dbV
-8.0dBv
-12.0dBv
XDOLPB/REC
XPBMUTE
DOLON/XOFF
PBL
PBR
RECL
RECR
PBX1/2
ACR
BCR
XBEATCUT
MS
RECMUTE
BIASCONT
PB1/X2
E2/3
E3/3
E1/3

3.5 AF ASSY (2/3)


B CN8004
DOUT
GNDD
CDWRQ
CDCLK
CDSQOU
CDDATA
KI1
DISC
INSIDE
OPEN
CLAMP
CDCE
CDRST
CDCS
CDDRF
VM+5
GNDM
CD Lch
GNDA
CD Rch
GNDD
VD+5
CN1052
52045-2245
CN1051
52045-2045
XR-A660 ONLY
W343
R1651
1.5k
L1651
4.7
JA1651
GP1F32T
C1651
0.1
W345
DIG OUT
GNDD (CD/VCD)
VD+5 (CD/VCD)
VM+5 (CD)
GNDM (CD)
E 3/3
(CD)
(TA)
(PB)
JA3001
VKB1060
L
R
AUX
R3001
15k
R3002
15k
R3003
10k
R3004
10k
C3003
220p
C3004
220p
W191
2.2/50(XR-A660)
0.47/50(XR-A330)
L ch
AUX
TX
DECK
CD
CLK
DATA
CE
R ch
CONTROL
SHIFT REGISTER
DECODER
LATCH
IC3001
LC75394NE
Vref
LVref
RVref
Main VOL L
Main VOL R
Vref NC
W901
W902
W903
W904
C3035
1.0/50
C3039
2.2/50
C3040
2.2/50
C3046
1.0/50
C3047
1.0/50
C3048
100p
C3049
100p
C3098
0.01
C3099
0.1
C3082
2.2/50
D3083
MTZJ11C
C3081
10/50
R3081
220
Q3081 2SD1858X
XR-A330 ONLY
W266
SPA MIX
2.7k(XR-A660)
56k(XR-A330)
R5691
10k
R5692
10k
R5693
R5694
2.7k
R5695
220
IC5691
BA4558F-H
W267
6.8k(XR-A660)
0k(XR-A330)
6.8k(XR-A660)
3.9k(XR-A330)
60Hz
120Hz
4kHz
NOTES
ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED
TL :CFTLA
M :CQMBA
(OTHER:CKCYF)
CH :CCSQCH
SL :CCSQSL
(OTHER:CKSQYB)
AL :CEAL
HAQ:CEHAQ
(OTHER :CEAS**M##orCEAT***M##)
ALL RESISTORS ARE IN Ω
1/10W(CHIP)
1/4WPU
ALL INDUCTORS ARE IN μH
LAU
CN5102
52045-3845
RDS CLK
RDS DATA
CD WRQ/VCS
CD CLK/VCLK
SQ OUT/VDV
CD DATA/VDS
DISC123
INSIDE
OPEN
CLAMP
CD CE
CD/VCD RESET
CD DRF
PLL CE
NC
E-VOL CE
FL AC1
FL AC2
VFDP
POWERON/OFF
E+5.6
LINE MUTE
GNDD
SDATA
TX DATA
SCLK
AC
EXP CLK
EXP DATA
EXP CE
SPA IN
MS
NC
ST/TUNE
GNDM
VM+12
VD+5
GNDA (MIC)
I CN5501
XR-A660 ONLY
IC5691
BA4558F-HT
MS
MSDETECT
GNDD
D2191
1SS133
D2192
1SS133
C2191
0.1
C2192
22p
C2193
0.1
C2194
0.1
R2191
1.8k
R2192
680k
R2193
10k
R2194
150k


A CN6201
RDS
NC
PLL CE
DATA
CLK
TX R
GND (TX)
TX L
TX DATA
MUTE
TUNE
V+12 (TX)
VD+5
STEREO
CN3051
KM2001B14
E 2/3 AF ASSY
(XR-A660 : XWZ3089)
(XR-A330 : XWZ3045)
: AUDIO SIGNAL ROUTE
(CD) : CD AUDIO SIGNAL ROUTE
(TA) : TUNER AUDIO SIGNAL ROUTE
(PB) : DECK PB SIGNAL ROUTE
(REC) : DECK REC SIGNAL ROUTE
V+12 (TX)
GNDA (TX)
VA+12
E 3/3
XR-A660
ONLY
BASS BLASTER
IC3101(1/2)
BA4558F-HT
IC3101
BA4558F
IC3102(1/2)
IC3102
IC3103(1/2)
IC3103(2/2)
Q3101
2SC2412K
Q3102
2SC2412K
D3102
1SS133
D3101
1SS133
L
GNDA
R
GNDA
GNDD
VD+5
RYON/OFF
GNDD
E 1/3
XR-A660
ONLY
IC5892
BU4094BCF
IC5891
BU4094BCF
D5891
1SS133
DATAOUT
VCDON/OFF/RDSON/OFF
CONT
E 3/3
V+12 (BIAS)
GND (BIAS)
E 3/3
(PB)
(REC)
PB L
PB R
REC L
REC R
S. GND
V+12 (BIAS)
GND (BIAS)
GNDD
VA+12
DOLON/XOFF
XDOLPB/REC
PB1/X2
ACr
BCr
XPBMUTE
BIASCONT
XBEATCUT
MS DETECT
E 1/3

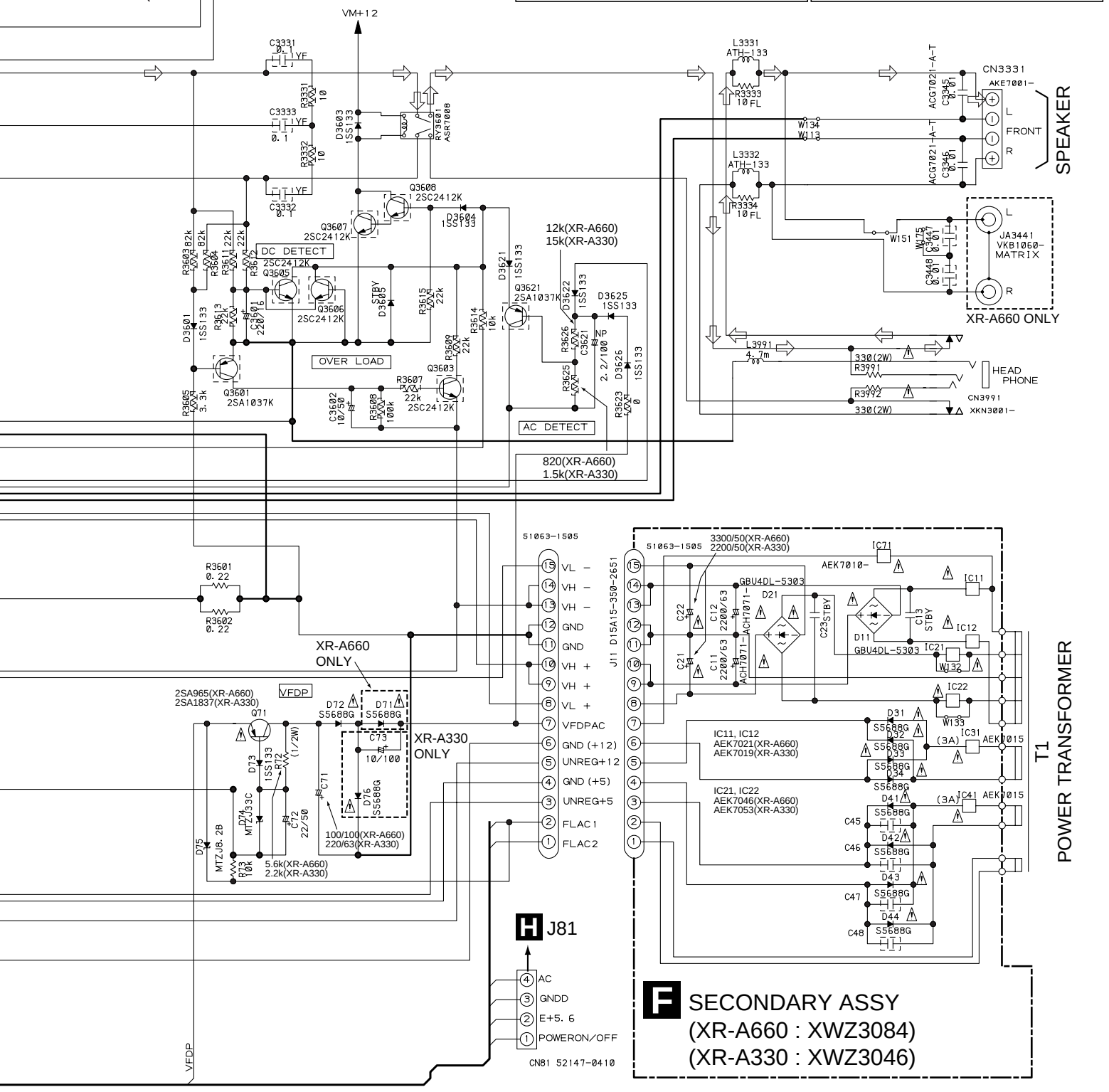
3.6 AF (3/3) and SECONDARY ASSEMBLIES



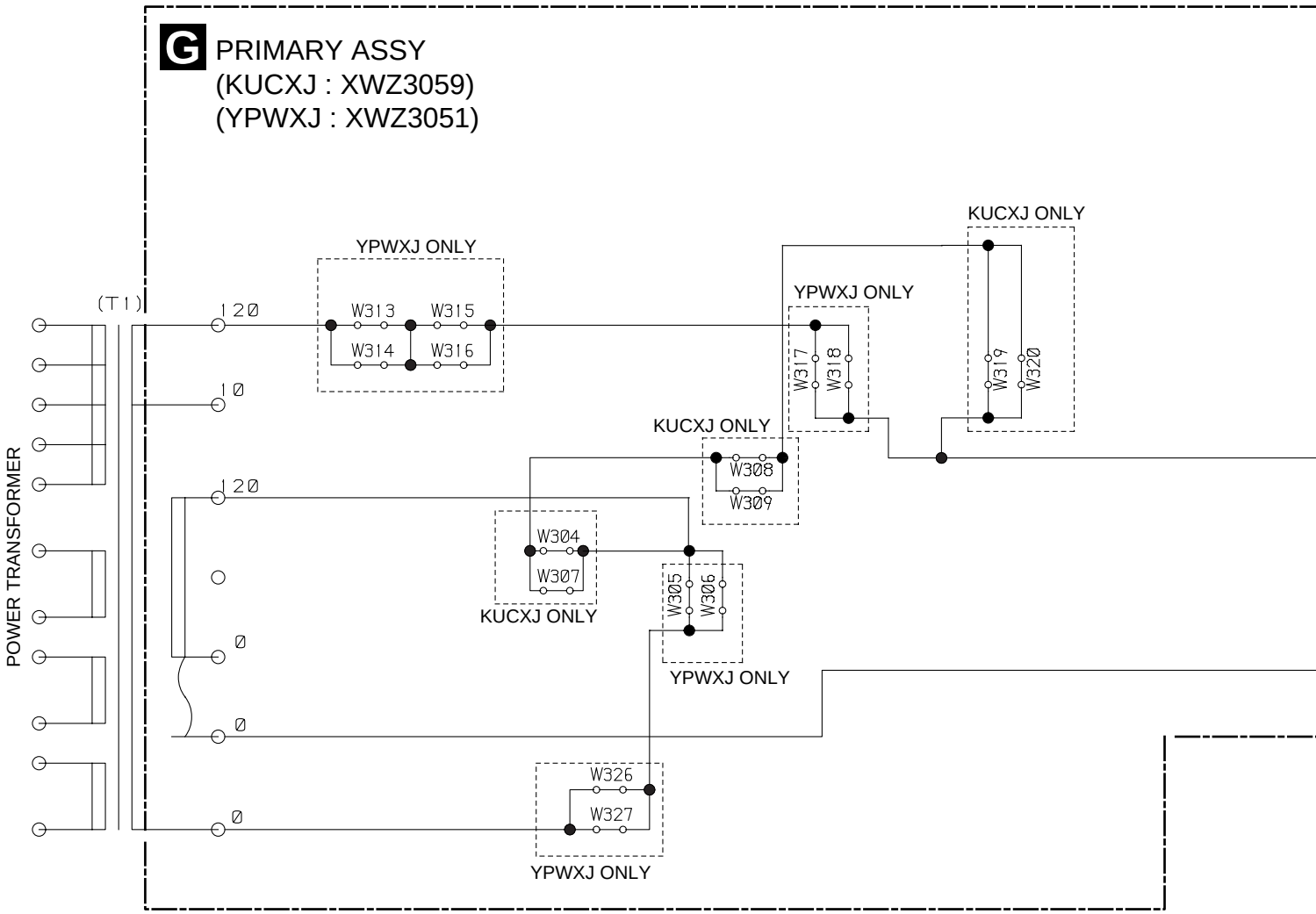
E 3/3 AF ASSY
(XR-A660 : XWZ3089)
(XR-A330 : XWZ3045)

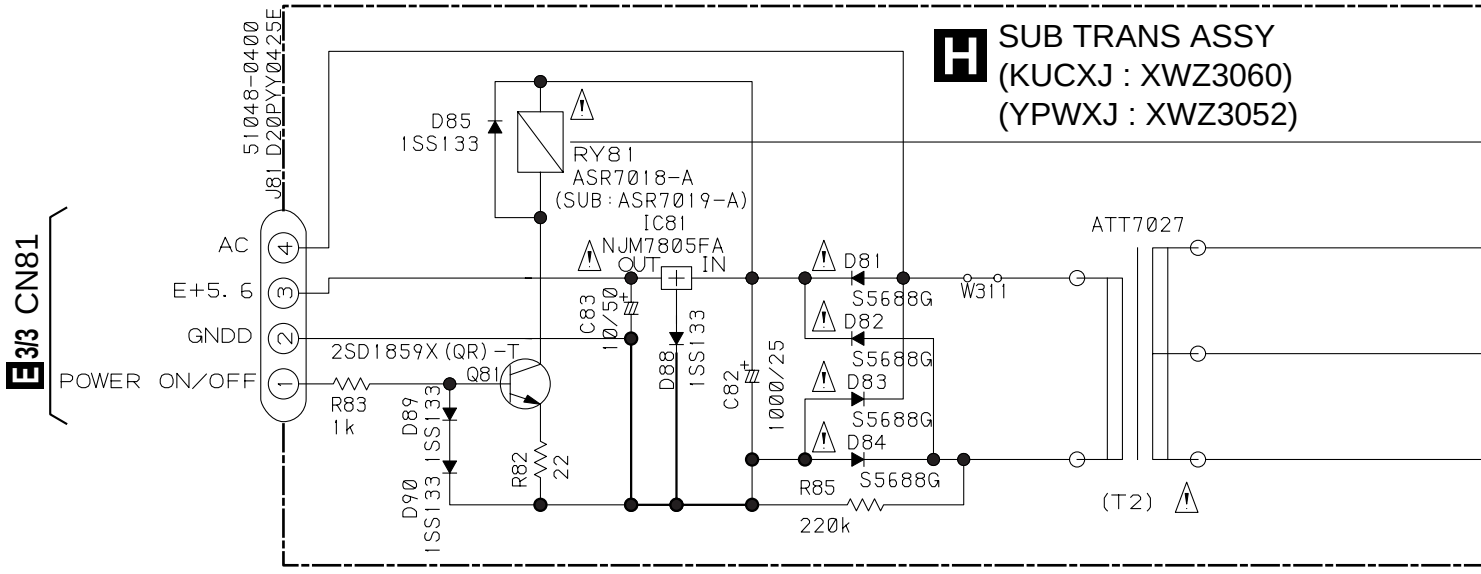
: AUDIO SIGNAL ROUTE

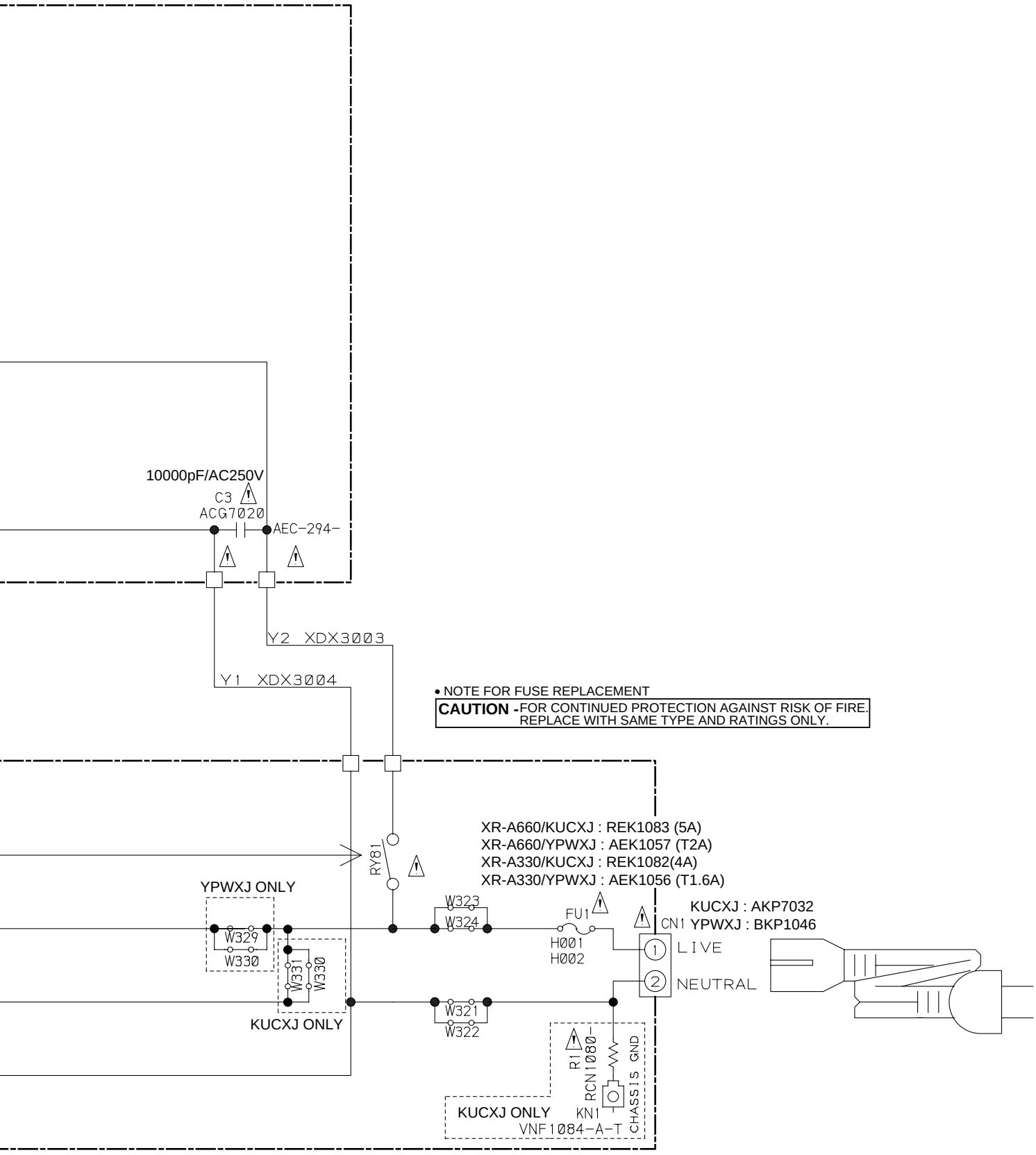
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 4911.25 MFD, BY LITTELFUSE INK. FOR IC71 (AEK7010).	CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491005 MFD, BY LITTELFUSE INK. FOR IC21 AND IC22 (AEK7046: XR-A660).
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491003 MFD, BY LITTELFUSE INK. FOR IC31 AND IC41 (AEK7015).	CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491005 MFD, BY LITTELFUSE INK. FOR IC11 AND IC12 (AEK7019: XR-A330).
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491007 MFD, BY LITTELFUSE INK. FOR IC11 AND IC12 (AEK7021: XR-A660).	CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491004 MFD, BY LITTELFUSE INK. FOR IC21 AND IC22 (AEK7053: XR-A330).



3.7 PRIMARY and SUB TRANS ASSEMBLIES



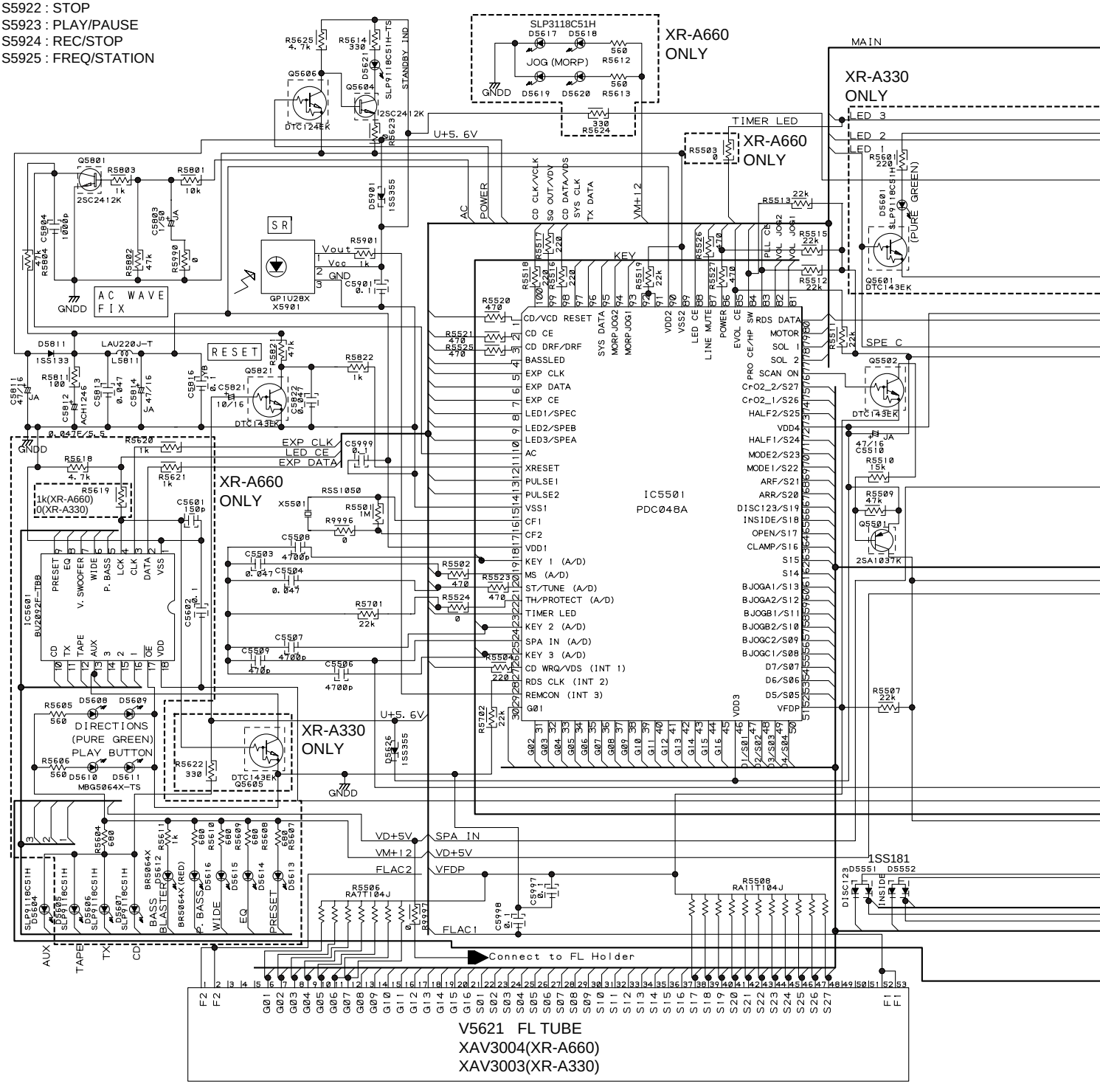


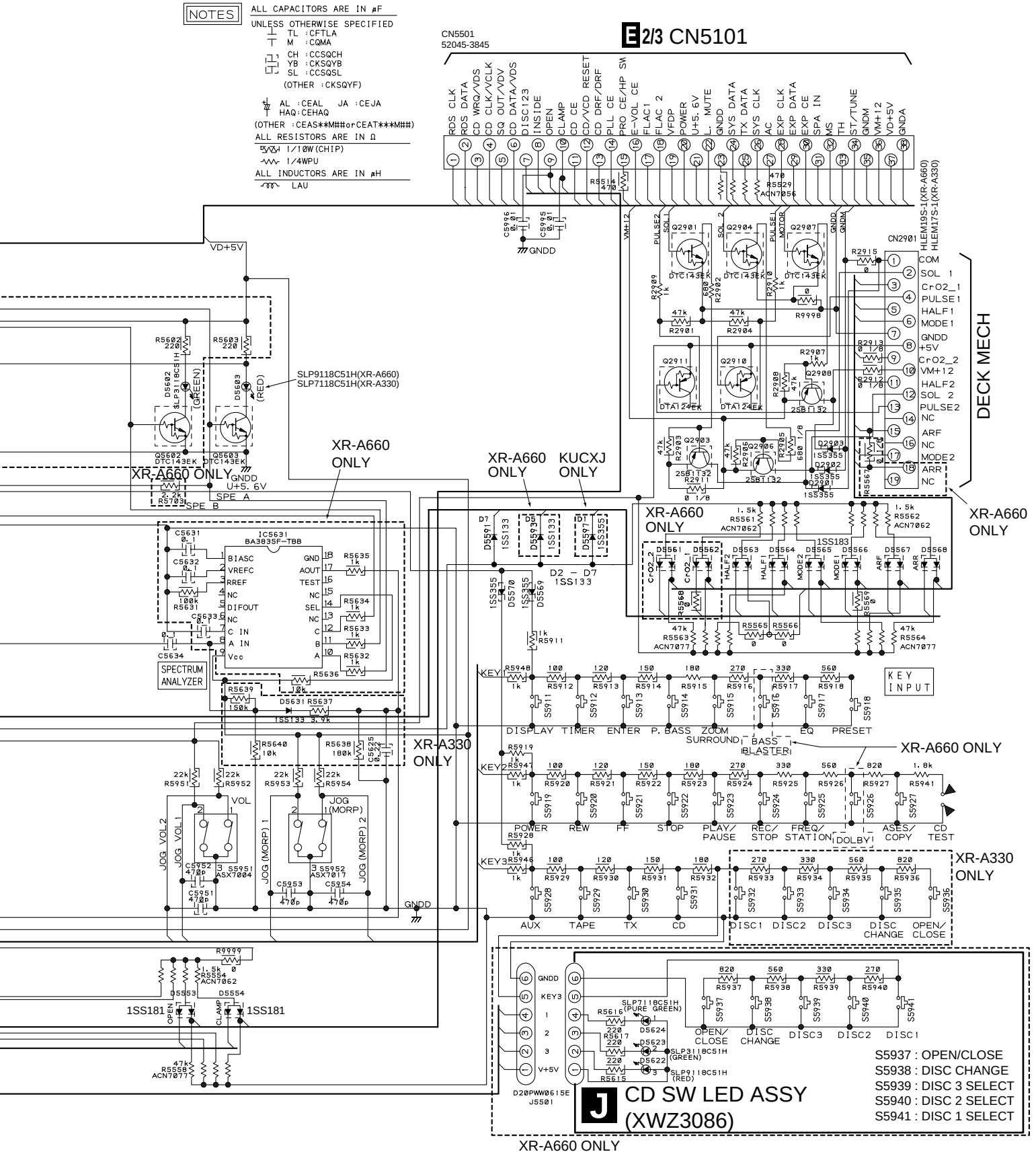

10000pF/AC250V
C3
ACG7020
AEC-294-
Y2 XDX3003
Y1 XDX3004
• NOTE FOR FUSE REPLACEMENT
CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.
XR-A660/KUCXJ : REK1083 (5A)
XR-A660/YPWXJ : AEK1057 (T2A)
XR-A330/KUCXJ : REK1082(4A)
XR-A330/YPWXJ : AEK1056 (T1.6A)
RY81
YPWXJ ONLY
W329
W330
W331
W330
KUCXJ ONLY
W323
W324
FU1
H001
H002
KUCXJ : AKP7032
CN1 YPWXJ : BKP1046
1 LIVE
2 NEUTRAL
W321
W322
R1
RCN1080-
CHASSIS GND
KUCXJ ONLY
KN1
VNF1084-A-T

3.8 DISPLAY and CD SW LED ASSEMBLIES

DISPLAY ASSY
- S5911 : DISPLAY
- S5912 : TIMER
- S5913 : ENTER
- S5914 : P. BASS
- S5915 : ZOOM SURROUND
- S5916 : BASS BLASTER
- S5917 : EQUALIZER
- S5918 : PRESET
- S5919 : STANDBY/ON
- S5920 : TUNING - ◄◄ |◄◄
- S5921 : TUNING + ►► ►►|
- S5922 : STOP
- S5923 : PLAY/PAUSE
- S5924 : REC/STOP
- S5925 : FREQ/STATION
- S5926 : DOLBY NR ON/OFF
- S5927 : ASES/COPY
- S5928 : AUX
- S5929 : TAPE I/II
- S5930 : TUNER/BAND
- S5931 : CD
- S5932 : DISC 1 SELECT
- S5933 : DISC 2 SELECT
- S5934 : DISC 3 SELECT
- S5935 : DISC CHANGE
- S5936 : OPEN/CLOSE

I DISPLAY ASSY
(XR-A660/KUCXJ : XWZ3092)
(XR-A660/YPWXJ : XWZ3110)
(XR-A330/KUCXJ : XWZ3058)
(XR-A330/YPWXJ : XWZ3047)

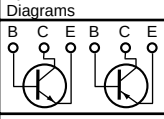
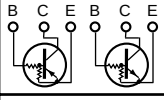
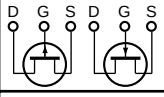
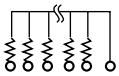



NOTES
ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED
TL :CFTLA
M :CQMA
CH :CCSQCH
YB :CKSQYB
SL :CCSQSL
(OTHER :CKSQYF)
AL :CEAL JA :CEJA
HAQ:CEHAQ
(OTHER :CEAS**M##orCEAT***M##)
ALL RESISTORS ARE IN Ω
1/10W(CHIP)
1/4WPU
ALL INDUCTORS ARE IN μH
LAU
CN5501
52045-3845
E 2/3 CN5101
RDS CLK
RDS DATA
CD WRQ/VDS
CD CLK/VCLK
SQ OUT/VDV
CD DATA/VDS
DISC123
INSIDE
OPEN
CLAMP
CD CE
CD/VCD RESET
CD DRF/DRF
PLL CE
PRO CE/HP SW
E-VOL CE
FLAC1
FLAC 2
VFDP
POWER
U+5. 6V
L. MUTE
GNDD
SYS DATA
TX DATA
SYS CLK
AC
EXP CLK
EXP DATA
EXP CE
SPA IN
MS
TH
ST/TUNE
GNDM
VM+12
VD+5V
GNDA
R5514 470
R5529 470 ACN7056
C5996 0.01
C5995 0.01
GNDD
VM+12
PULSE2
SOL 1
SOL 2
PULSE1
MOTOR
GNDD
GNDM
Q2901
Q2904
Q2907
DTC143EK
R2909 1k
R2902 680
R2910 1k
R9998
R2901 47k
R2904 47k
Q2911
Q2910
Q2908
DTA124EK
DTA124EK
2SB1132
R2907 1k
R2908 47k
R2913 0 1/8
R2912 680 1/8
CN2901
HLEM19S-1(XR-A660)
HLEM17S-1(XR-A330)
COM
SOL 1
CrO2_1
PULSE1
HALF1
MODE1
GNDD
+5V
CrO2_2
VM+12
HALF2
SOL 2
PULSE2
NC
ARF
NC
MODE2
ARR
NC
DECK MECH
R2915 0
R2916 0
R2917 0
R2918 0
R5568 0
R5569 0
VD+5V
R5602 220
R5603 220
SLP9118C51H(XR-A660)
SLP7118C51H(XR-A330)
D5602 SLP3118C51H (GREEN)
D5603 (RED)
Q5602 DTC143EK
Q5603 DTC143EK
XR-A660 ONLY
GNDD
U+5. 6V
SPE A
SPE B
R5703 2.2k
XR-A660 ONLY
XR-A660 ONLY
KUCXJ ONLY
XR-A660 ONLY
XR-A660 ONLY
IC5631
BA3835F-TBB
BIASC
VREFC
RREF
NC
DIFOUT
NC
C IN
A IN
Vcc
GND
AOUT
TEST
NC
SEL
NC
C
B
A
C5631 0.1
C5632 0.1
R5631 100k
C5633 0.1
C5634 0.1
R5635 1k
R5634 1k
R5633 1k
R5632 1k
R5636 10k
SPECTRUM ANALYZER
R5639 150k
D5631 1SS133
R5637 5. 9k
R5640 10k
R5638 180k
C5625 0.22
XR-A330 ONLY
D7 1SS133
D5591
D5593
D5597
D2 – D7 1SS133
1SS355
D5570
D5569
R5911 1k
D5561 D5562 D5563 D5564 D5565 D5566 D5567 D5568
1SS183
CrO2_2
CrO2
HALF2
HALF1
MODE2
MODE1
ARF
ARR
R5561 1.5k ACN7062
R5562 1.5k ACN7062
R5563 47k ACN7077
R5565 0
R5566 0
R5564 47k ACN7077
KEY1
R5948 1k
R5912 100
R5913 120
R5914 150
R5915 180
R5916 270
R5917 330
R5918 560
S5911
S5912
S5913
S5914
S5915
S5916
S5917
S5918
DISPLAY TIMER ENTER P. BASS ZOOM SURROUND BASS EQ PRESET
IBLASTER
KEY INPUT
KEY2
R5947 1k
R5920 100
R5921 120
R5922 150
R5923 180
R5924 270
R5925 330
R5926 560
R5927 820
R5941 1.8k
S5919
S5920
S5921
S5922
S5923
S5924
S5925
S5926
S5927
POWER REW FF STOP PLAY/ PAUSE REC/ STOP FREQ/ STATION DOLBY ASES/ COPY CD TEST
XR-A660 ONLY
R5928 1k
KEY3
R5946 1k
R5929 100
R5930 120
R5931 150
R5932 180
R5933 270
R5934 330
R5935 560
R5936 820
S5928
S5929
S5930
S5931
S5932
S5933
S5934
S5935
S5936
AUX TAPE TX CD
DISC1 DISC2 DISC3 DISC CHANGE OPEN/ CLOSE
XR-A330 ONLY
VOL
JOG (MORP)
JOG VOL2
JOG VOL1
JOG (MORP) 1
JOG (MORP) 2
R5951 22k
R5952 22k
R5953 22k
R5954 22k
S5951 ASX7004
S5952 ASX7017
C5952 470p
C5951 470p
C5953 470p
C5954 470p
GNDD
R9999 0
R5554 1.5k ACN7062
D5553
D5554
1SS181
1SS181
OPEN
CLAMP
R5556 47k ACN7077
D20PWW0615E
J5501
GNDD
KEY3
1
2
3
V+5V
SLP7118C51H (PURE GREEN)
SLP3118C51H (GREEN)
SLP9118C51H (RED)
R5616 220
R5617 220
R5615 220
D5624
D5623
D5622
R5937 820
R5938 560
R5939 330
R5940 270
S5937
S5938
S5939
S5940
S5941
OPEN/ CLOSE
DISC CHANGE
DISC3
DISC2
DISC1
J CD SW LED ASSY (XWZ3086)
S5937 : OPEN/CLOSE
S5938 : DISC CHANGE
S5939 : DISC 3 SELECT
S5940 : DISC 2 SELECT
S5941 : DISC 1 SELECT
XR-A660 ONLY

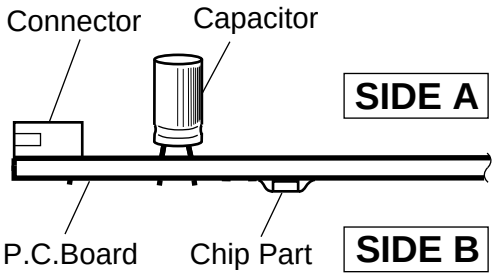
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

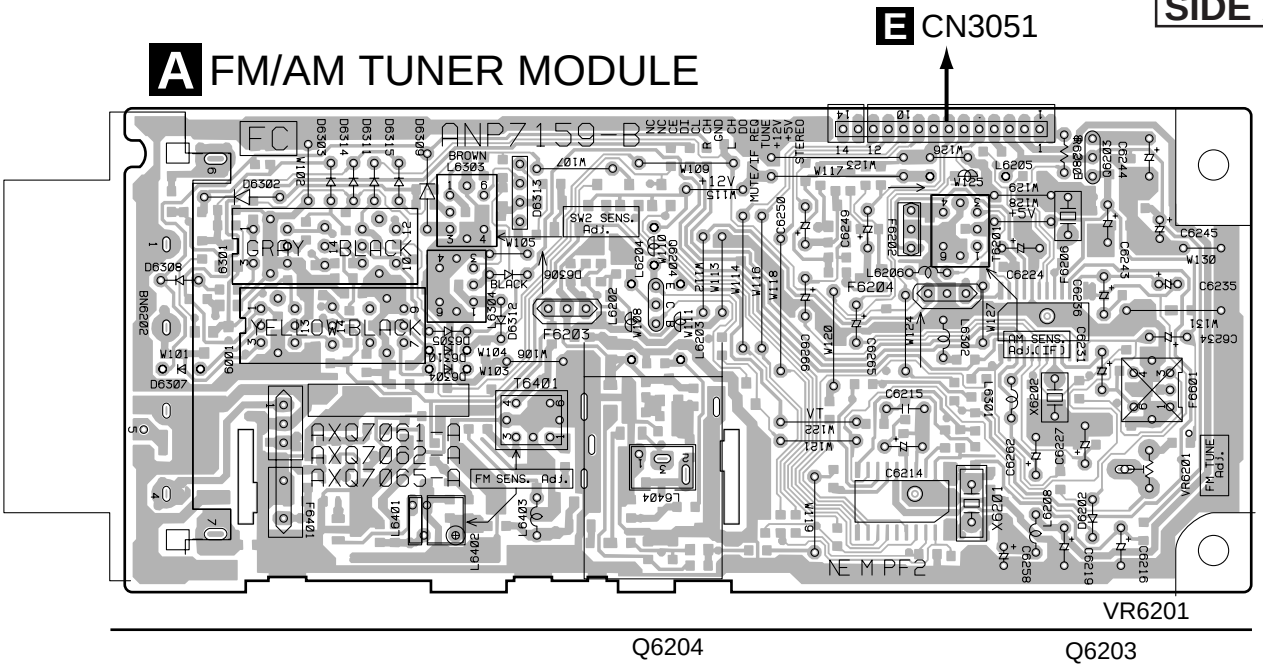
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



4.1 FM/AM TUNER MODULE

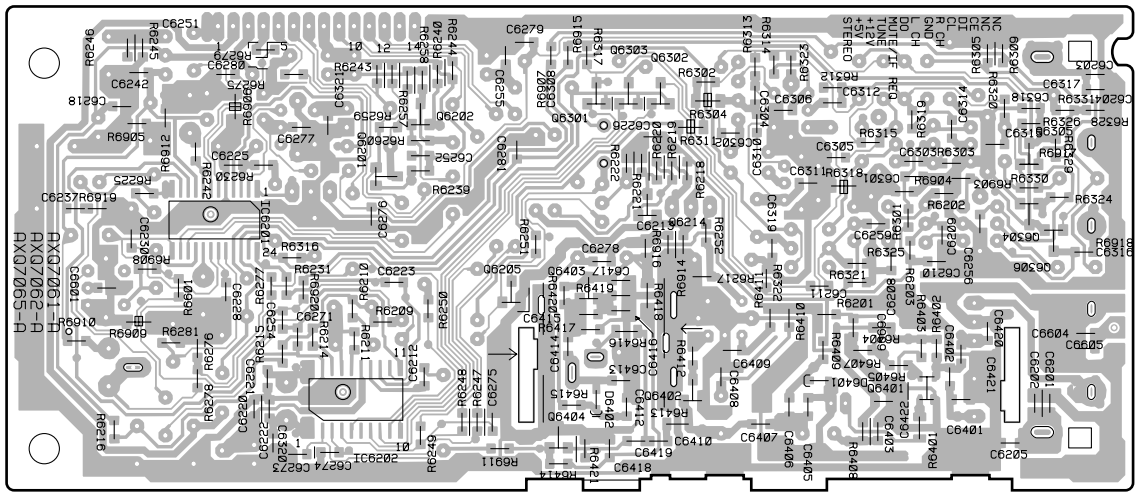
SIDE A

A FM/AM TUNER MODULE

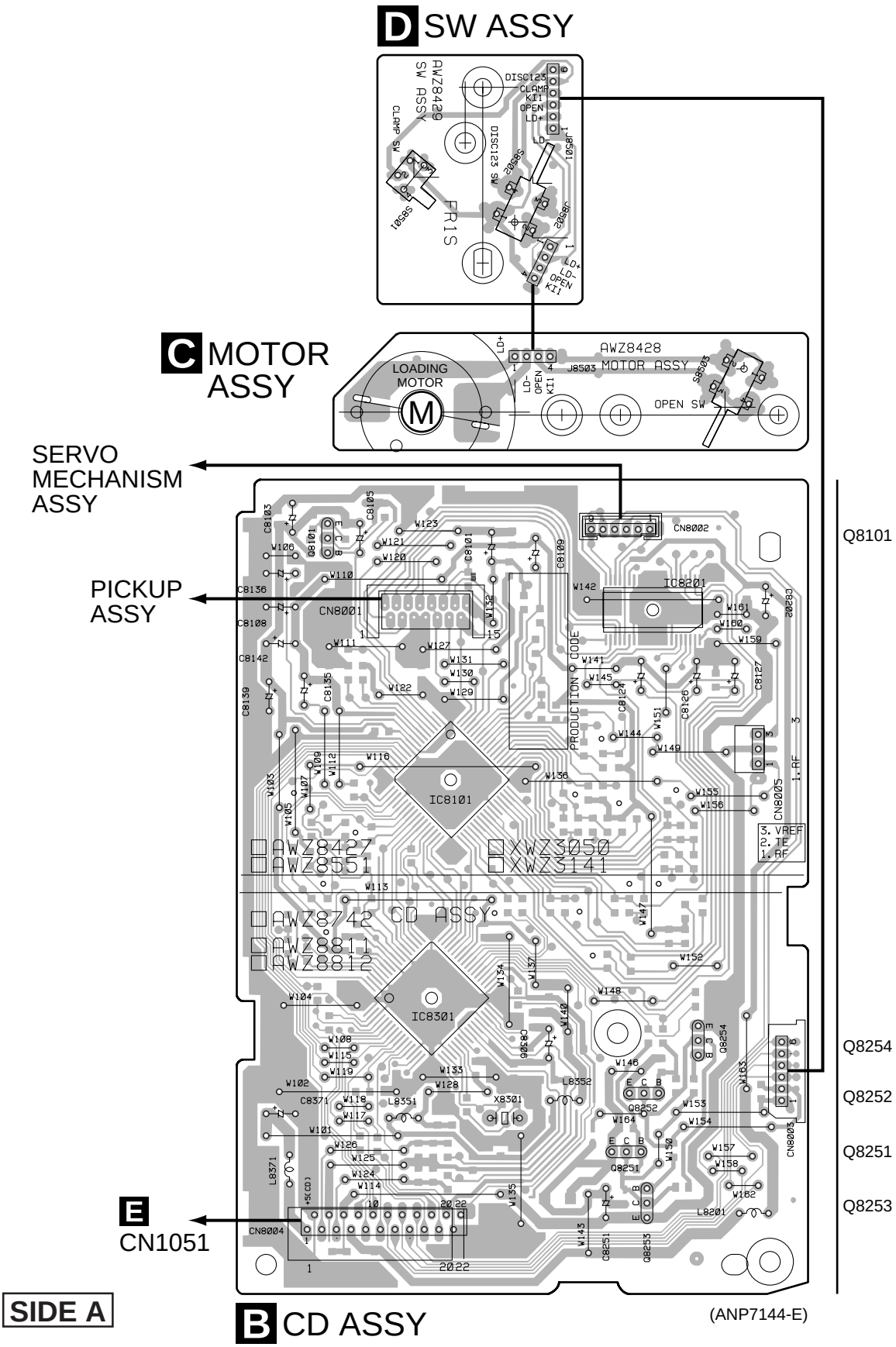


SIDE B

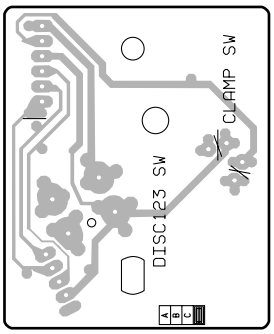
A FM/AM TUNER MODULE



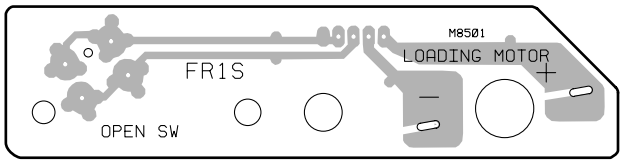
4.2 CD, MOTOR and SW ASSEMBLIES

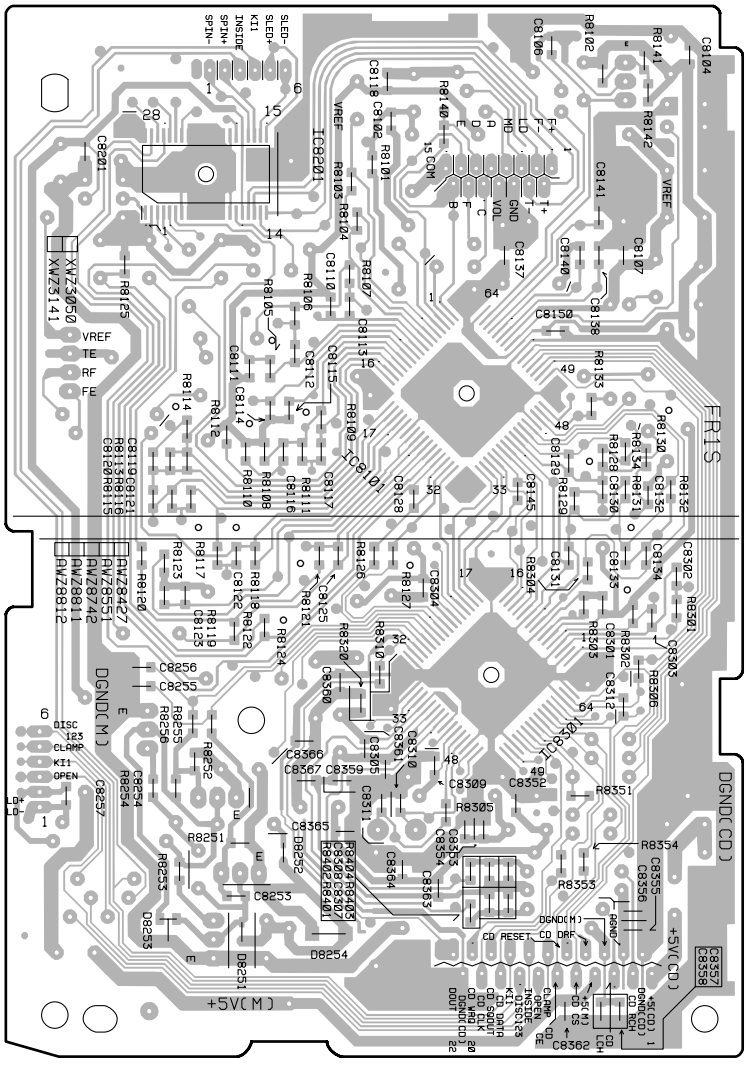


D SW ASSY



C MOTOR ASSY



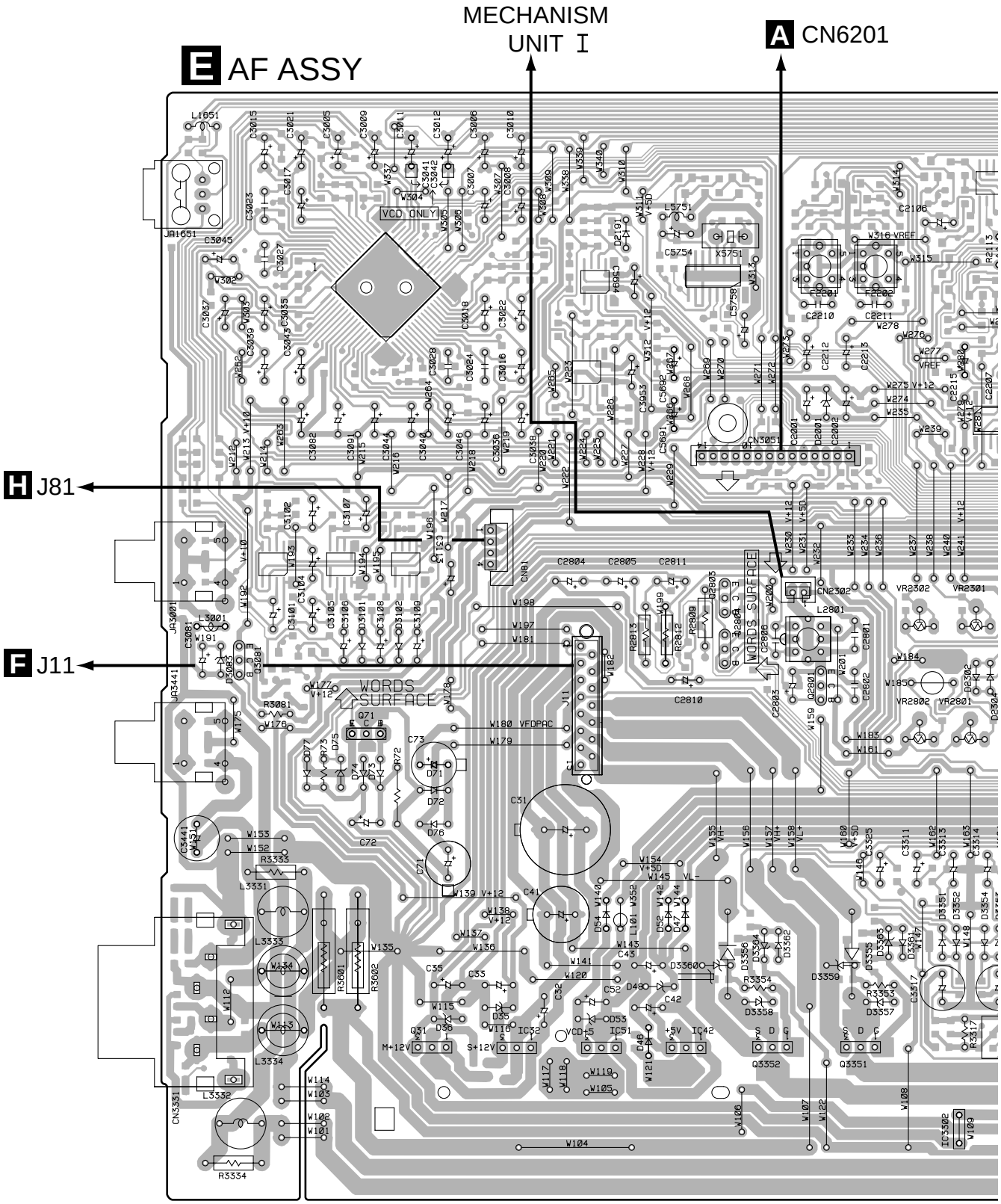


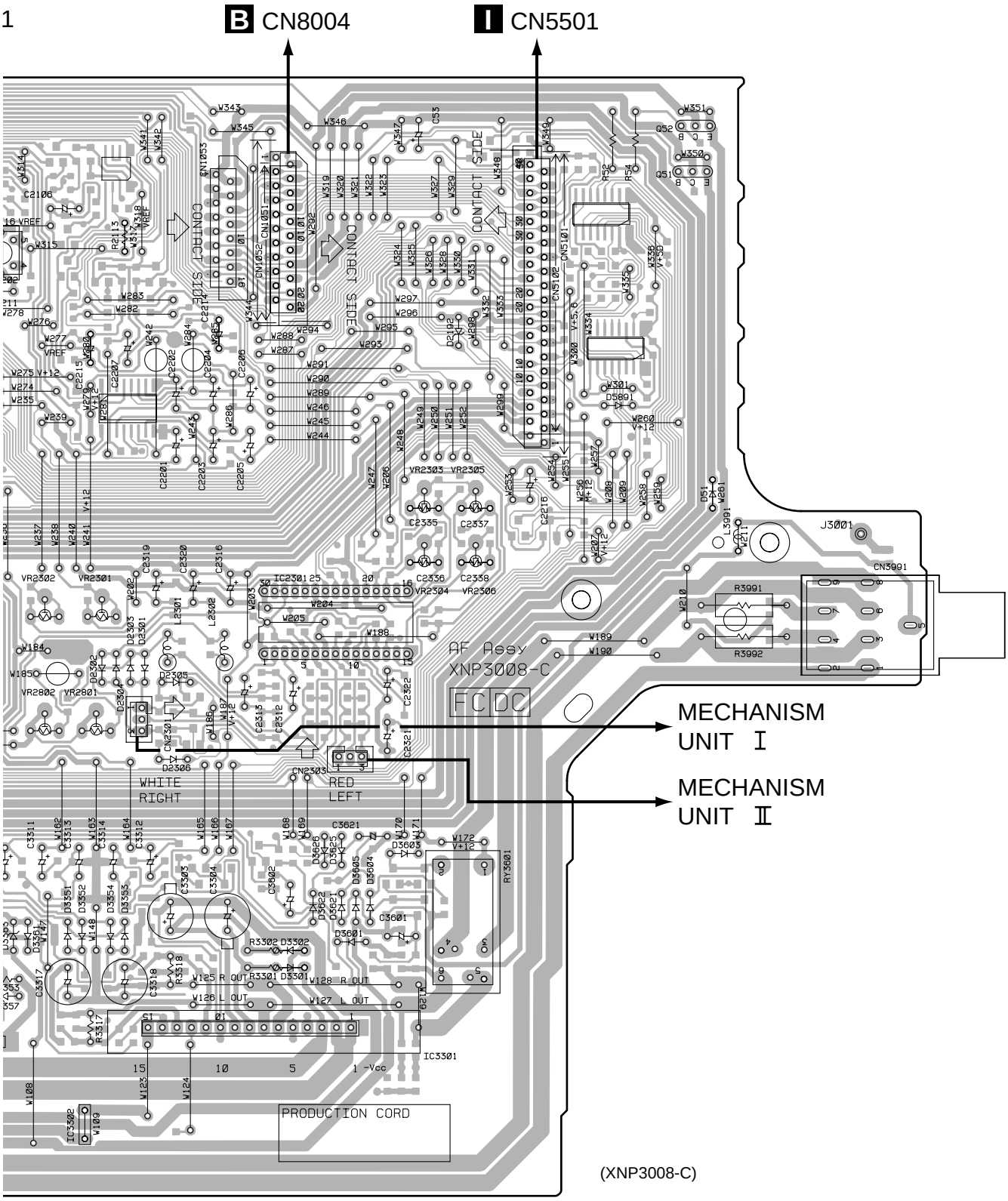
B CD ASSY

(ANP7144-E)

SIDE B

4.3 AF ASSY


MECHANISM
UNIT I
A CN6201
E AF ASSY
H J81
F J11
VCD ONLY
WORDS SURFACE
VR2302 VR230
VR2802 VR280
SIDE A
Q3081 Q71 Q2803 Q2804 Q2801
Q31 IC32 IC51 IC42 Q3352 Q3351

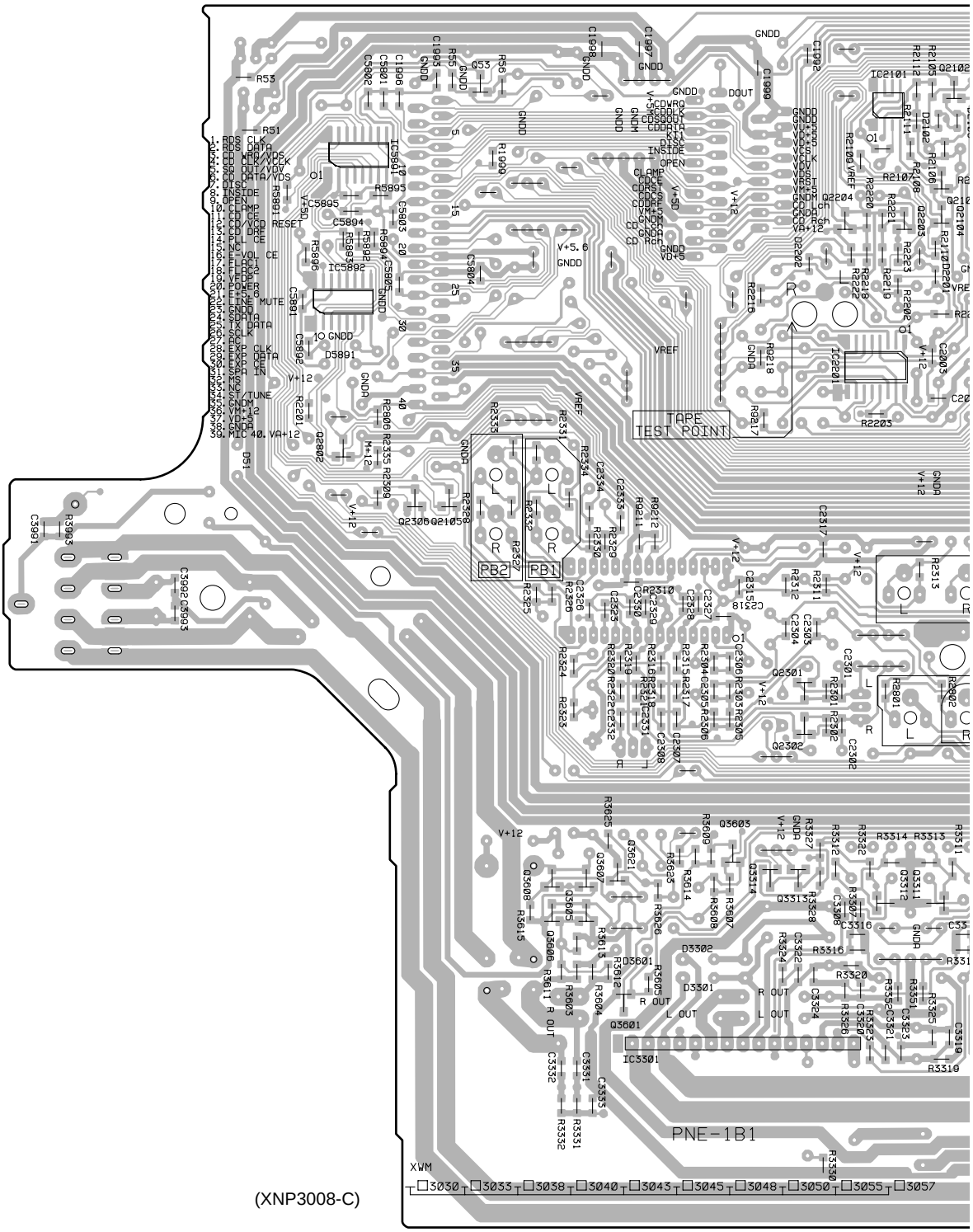


VR2302 VR2301 VR2303—VR2306
VR2802 VR2801

IC2301 Q52

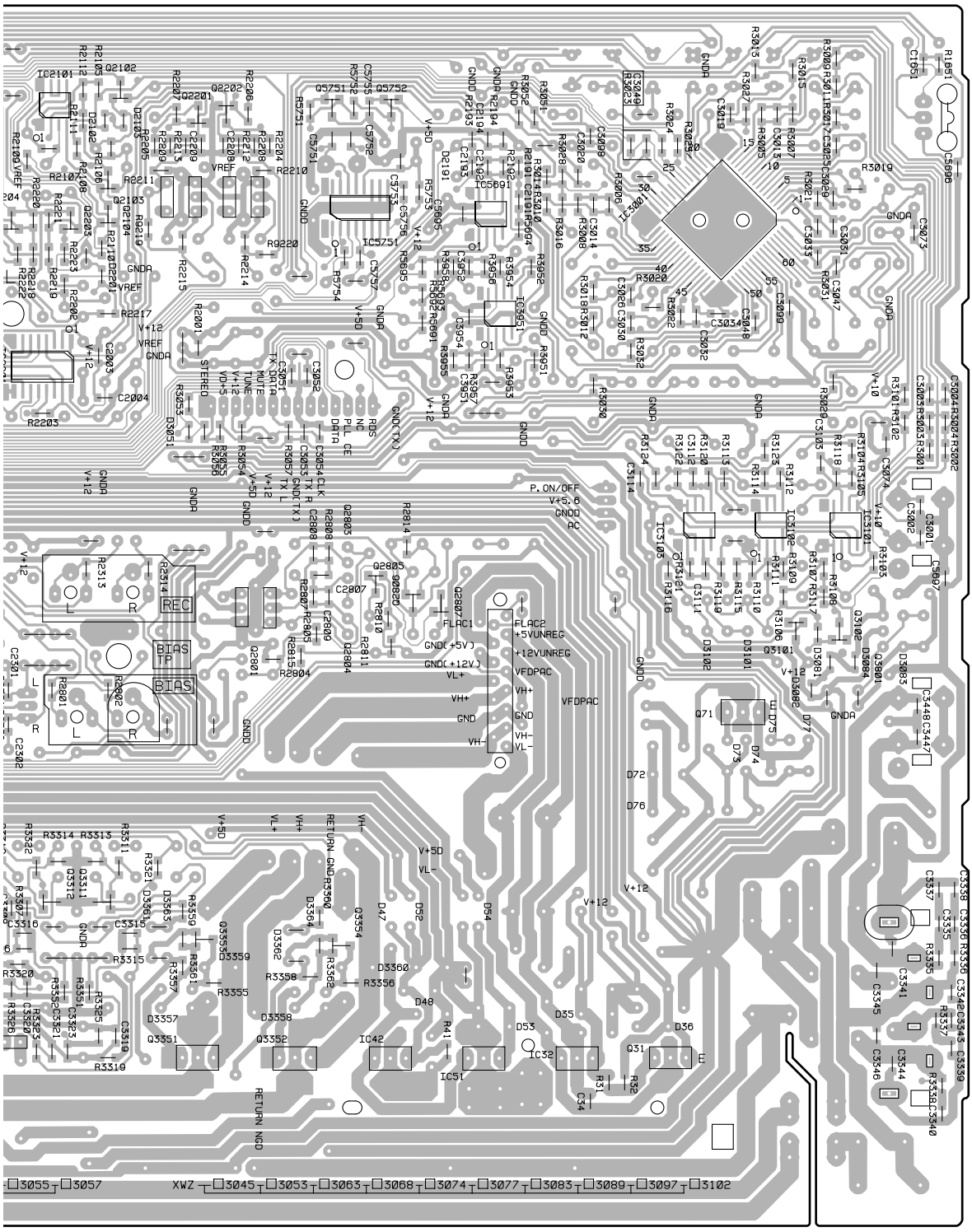
1 IC3301 Q51

E AF ASSY



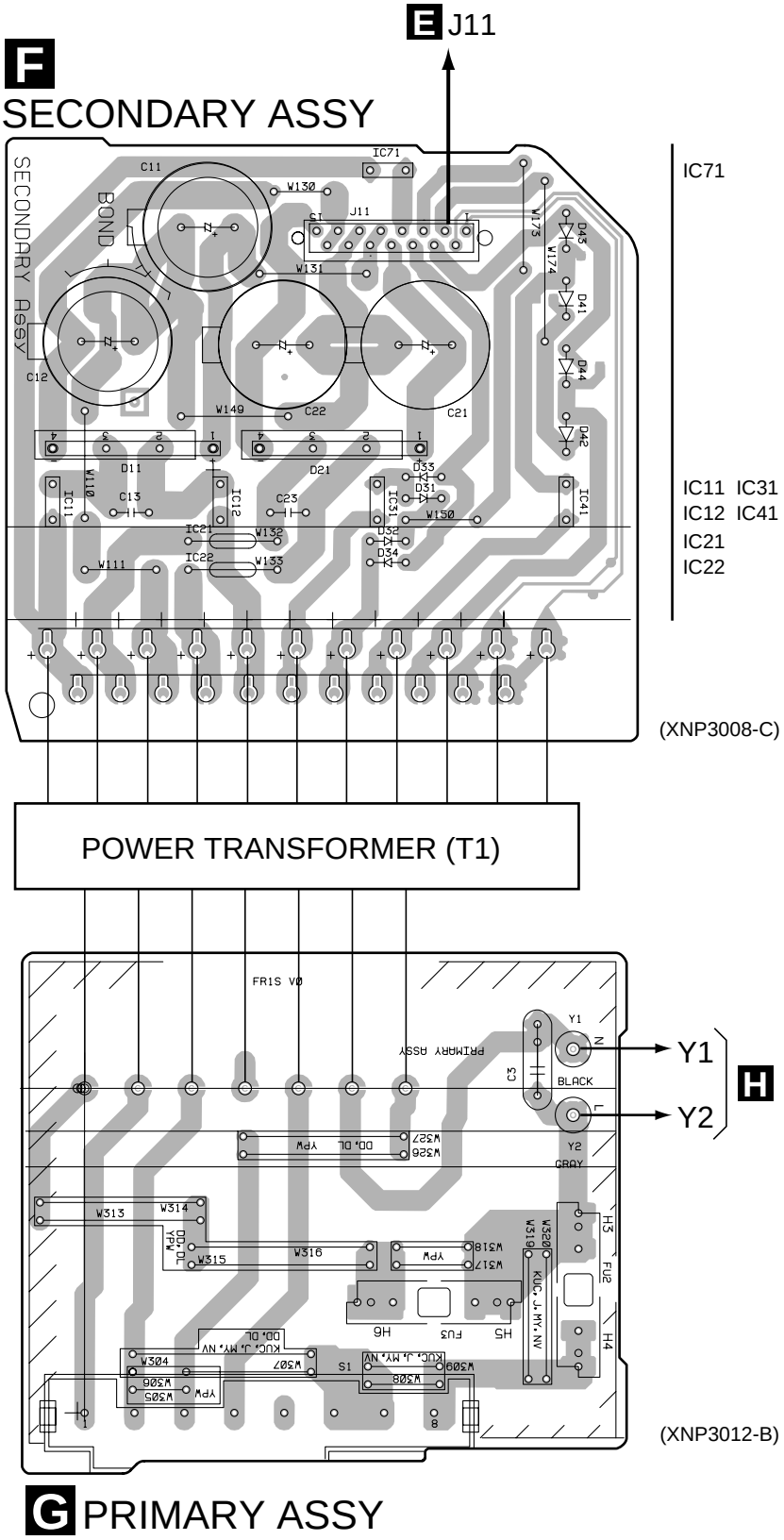
IC5891 Q53 IC2101
IC5892 Q3605—Q3608 Q2301 Q2204 Q2203 Q2
Q2802 Q2306 Q2105 Q3601 Q3603 Q2302 IC2201
IC3301 Q3314 Q3313 Q3312 Q331

SIDE B



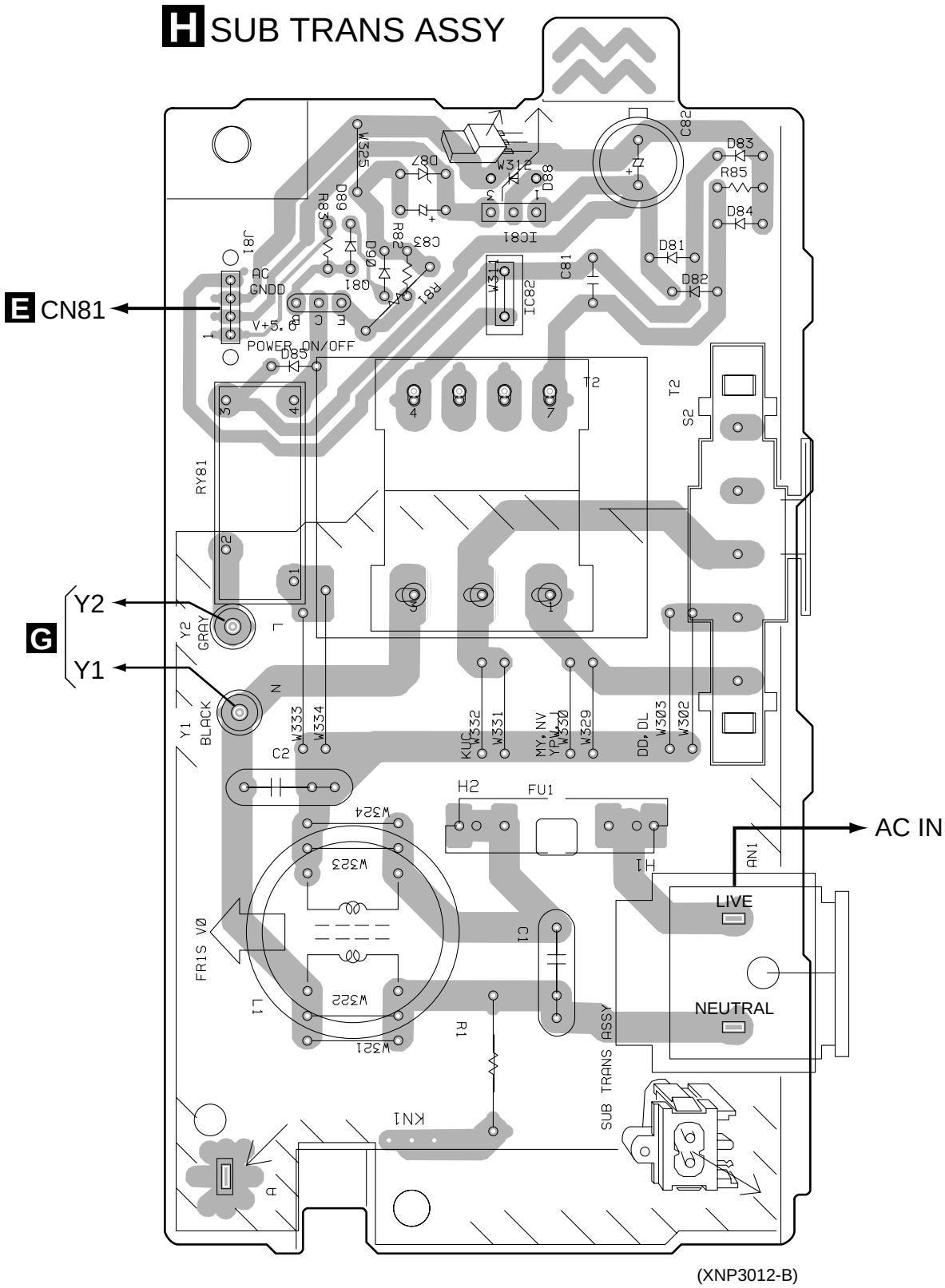
IC2101 Q2201 Q2202 Q5751 Q5752 IC5691 IC3001
Q2204 Q2203 Q2103 IC5751 IC3951 IC3101— IC3103
IC2201 Q3353 Q3354 Q2805— Q2807 Q3101 Q3102
Q3312 Q3311 Q3351 Q3352 IC42 IC51 IC32 Q31

4.4 SECONDARY and PRIMARY ASSEMBLIES



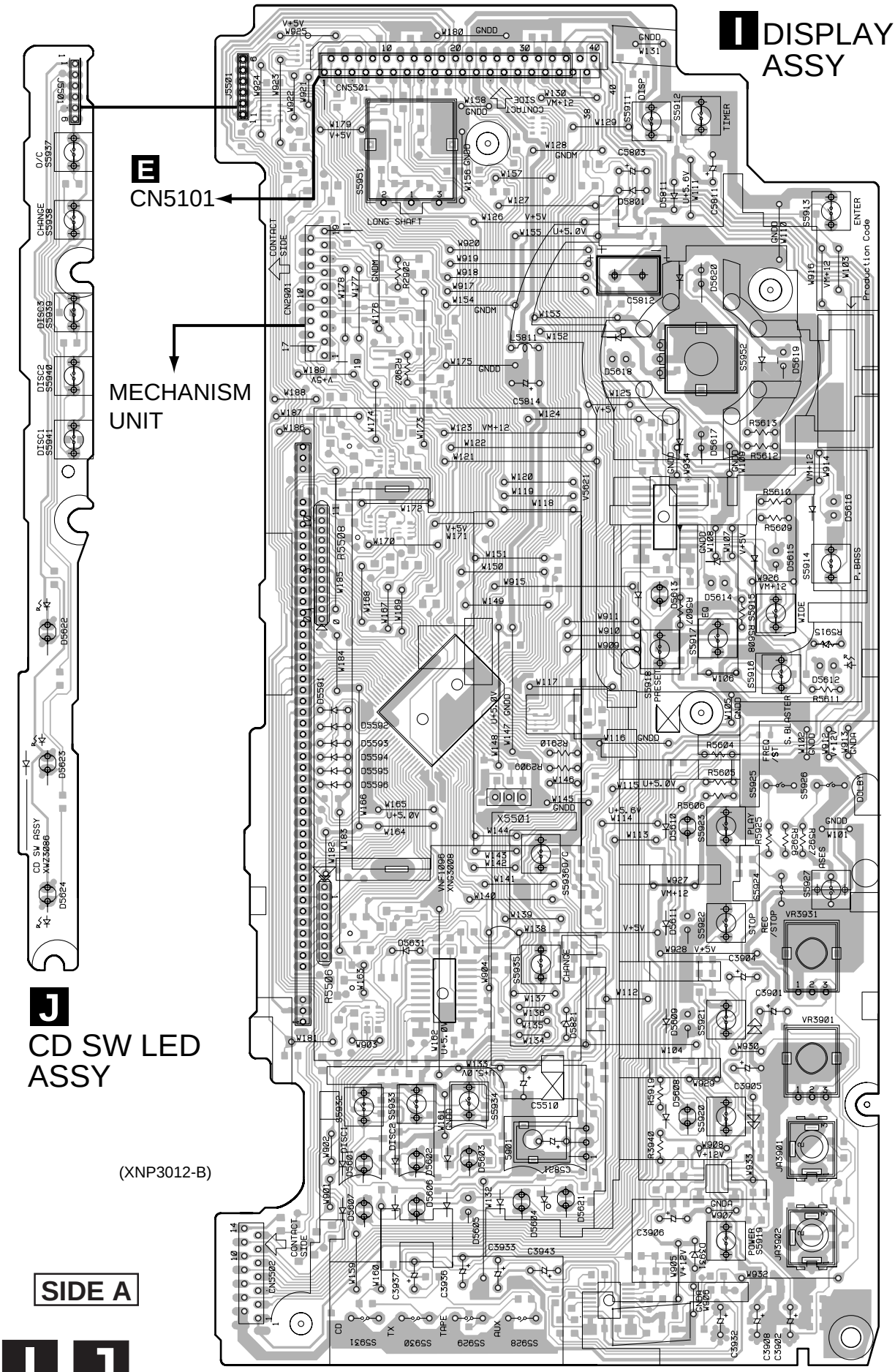
SIDE A

4.5 SUB TRANS ASSY

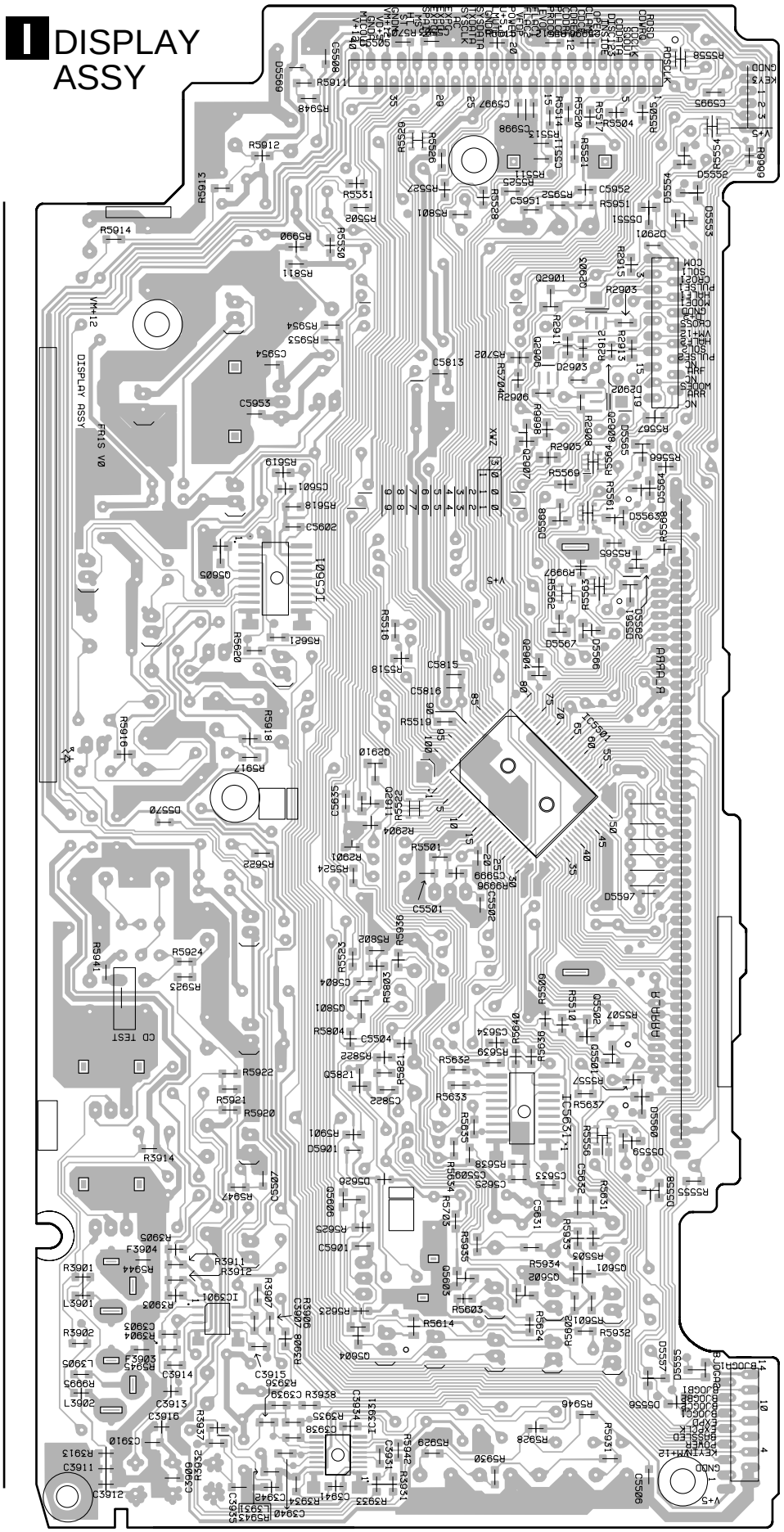


SIDE A

4.6 DISPLAY and CD SW LED ASSEMBLIES



I DISPLAY ASSY



J CD SW LED ASSY

(XNP3012-B)

SIDE B

5. PCB PARTS LIST

NOTES: ●**Parts marked by "NSP" and ⊗ can not be supplied.**

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56×10^1 → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47×10^3 → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562×10^1 → 5621 ..... RN1/4PC 5 6 2 1 F

LIST OF HOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.				Remarks
		XR-A660	XR-A660	XR-A330	XR-A330	
		KUCXJ	YPWXJ	KUCXJ	YPWXJ	
	FM/AM TUNER MODULE	AXQ7065	AXQ7065	AXQ7065	AXQ7065	
NSP	$M SERVO BOARD ASSY	XWX3005	XWX3005	XWX3002	XWX3002	
⊗	├CD ASSY	XWZ3141	XWZ3141	XWZ3050	XWZ3050	
⊗	├MOTOR ASSY	AWZ8428	AWZ8428	AWZ8428	AWZ8428	
NSP	└SW ASSY	AWZ8429	AWZ8429	AWZ8429	AWZ8429	
NSP	MAIN ASSY	XWM3050	XWM3050	XWM3030	XWM3030	
⊗	├AF ASSY	XWZ3089	XWZ3089	XWZ3045	XWZ3045	
⊗	└SECONDARY ASSY	XWZ3084	XWZ3084	XWZ3046	XWZ3046	
NSP	COMPLEX ASSY	XWM3052	XWM3051	XWM3035	XWM3032	
⊗	├PRIMARY ASSY	XWZ3059	XWZ3051	XWZ3059	XWZ3051	
⊗	├SUB TRANS ASSY	XWZ3060	XWZ3052	XWZ3060	XWZ3052	
⊗	├DISPLAY ASSY	XWZ3092	XWZ3110	XWZ3058	XWZ3047	
⊗	└CD SW LED ASSY	XWZ3086	XWZ3086	Not used	Not used	

Mark	No.	Description	Part No.

A FM/AM TUNER MODULE

SEMICONDUCTORS

	IC6201	LA1832ML
	IC6202	LC72131MD
	Q6402	2SC2223
	Q6203	2SC2705
	Q6201, Q6202	2SC2712
	Q6214, Q6403	2SC2714
	Q6404	2SK302
	Q6401	3SK194
	Q6204	DTA124ES
	Q6205	DTC124EK
	D6202	1SS254
	D6401, D6402	1T378A

COILS AND FILTERS

	L6404	ATC1003
	L6401	ATC1020
	L6402	ATC1021
	F6204	ATF-107
	F6203	ATF-119
	F6401	ATF-155
	F6206	ATF7008
	F6202	ATF7011
	L6206, L6208, L6403	LAU2R2J

TRANSFORMERS

	T6201	ATB7008
	T6401	ATE7002

CAPACITORS

	C6208	CCSQCH100D50
	C6212, C6274, C6275, C6408	CCSQCH101J50
	C6412	CCSQCH102J50
	C6221, C6222, C6416	CCSQCH150J50
	C6271	CCSQCH200J50
	C6415	CCSQCH330J50
	C6406	CCSQCH331J50
	C6401, C6419	CCSQCH5R0C50
	C6407	CCSQCK1R0C50
	C6410	CCSQCK2R0C50

Mark	No.	Description	Part No.
	C6413		CCSQRH180J50
	C6414		CCSQRH8R0D50
	C6405		CCSQTH150J50
	C6234, C6235		CEAL1R0M50
	C6245		CEAL470M16
	C6224		CEAT100M50
	C6243		CEAT101M16
	C6231		CEAT1R0M50
	C6227		CEAT220M25
	C6214, C6236		CEAT2R2M50
	C6262		CEAT3R3M50
	C6219		CEAT470M10
	C6244		CEAT470M16
	C6249, C6250, C6265, C6266		CEAT4R7M50
	C6258		CEJA470M16
	C6215		CFTLA103J50
	C6211, C6254, C6403, C6417		CKSQYB102K50
	C6201, C6205, C6210, C6237, C6276		CKSQYB103K50
	C6278, C6280, C6281, C6402, C6409		CKSQYB103K50
	C6418		CKSQYB103K50
	C6251, C6252		CKSQYB153K50
	C6203, C6259		CKSQYB223K50
	C6228		CKSQYB472K50
	C6209		CKSQYB473K50
	C6230		CKSQYB821K50
	C6218, C6223, C6255		CKSQYF103Z50
	C6220, C6226, C6242, C6256		CKSQYF223Z50
	C6225		CKSQYF473Z50

RESISTORS

	R6280		RD1/4PU101J
	R6413, R6416, R6418, R6906, R6909		RS1/8S0R0J
	R6401		RS1/8S470J
	VR6201 (10kΩ)		PCP1029
	Other Resistors		RS1/10S□□□J

OTHERS

	BN6202	4P ANTENNA TERMINAL	AKE7025
	X6202	CERAMIC RESONATOR (456kHz)	ASS1066
	X6201	CRYSTAL RESONATOR (7.2000MHz)	ASS1093
	CN6201	14P SOCKET	KP200IA14L
		MW RF TUNING BLOCK	AXX7041

B CD ASSY

(1) CONTRAST TABLE

XWZ3141 and XWZ3050 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3141	XWZ3050	
	C8310	CCSQCH180J50	CCSQCH150J50	
	R8305	RS1/10S331J	RS1/10S0R0J	
	R8310	RS1/10S102J	Not used	
	CN8004	HLEM22R-1	HLEM20R-1	
	X8301 (16.9344MHz)	PSS1008	DSS1083	

Mark	No.	Description	Part No.

(2) PARTS LIST FOR XWZ3141

SEMICONDUCTORS

	IC8201		BA5923FP
	IC8101		LA9241ML
	IC8301		LC78622NE
	Q8101		2SA1048
	Q8251, Q8252		2SB1237X
	Q8253, Q8254		2SD1858X
	D8253		1SS181
	D8251, D8252		1SS355

COILS AND FILTERS

	L8351, L8352		LFA1R0K
	L8201, L8371		LFA470J

CAPACITORS

	C8145, C8352, C8354, C8356, C8358		CCSQCH101J50
	C8361, C8362		CCSQCH101J50
	C8132, C8311		CCSQCH150J50
	C8310		CCSQCH180J50
	C8131		CCSQCH300J50
	C8129		CCSQCK1R0C50
	C8142		CEAL101M6R3
	C8127		CEAL1R0M50
	C8126, C8139		CEAL470M16
	C8135		CEAL4R7M16
	C8124		CEALR47M50
	C8136		CEAT100M50
	C8108, C8306, C8371		CEAT101M10
	C8202		CEAT101M25
	C8101		CEAT3R3M50
	C8105		CEAT470M16
	C8109		CEATR22M50
	C8106, C8119, C8133, C8307, C8308		CKSQYB102K50
	C8360		CKSQYB102K50
	C8102, C8122, C8123, C8130		CKSQYB103K50
	C8137, C8138, C8201, C8309, C8312		CKSQYB103K50
	C8134, C8302, C8303		CKSQYB104K25
	C8353, C8359		CKSQYB152K50
	C8111		CKSQYB153K25
	C8114, C8117, C8120, C8121		CKSQYB154K16
	C8125		CKSQYB221K50
	C8107		CKSQYB223K50
	C8110		CKSQYB331K50
	C8115, C8128		CKSQYB332K50
	C8113		CKSQYB333K25
	C8112, C8141		CKSQYB334K16
	C8116, C8140, C8355, C8357		CKSQYB473K50
	C8118, C8255–C8257, C8301		CKSQYF104Z25
	C8304, C8305		CKSQYF104Z25

RESISTORS

	All Resistors		RS1/10S□□□J

OTHERS

	CN8003	6P JUMPER CONNECTOR	52151-0610
	CN8002	KR CONNECTOR	B6B-PH-K-S
	CN8005	3P SIDE POST	BS3P-SHF-1AA
	CN8004	FFC CONNECTOR 20P	HLEM22R-1
	CN8001	FFC CONNECTOR	SLW15S-1C7
	X8301	CERAMIC RESONATOR (16.9344MHz)	PSS1008

Mark	No.	Description	Part No.

C MOTOR ASSY

SWITCHES AND RELAYS

	S8503		ASG7009

OTHERS

	J8502	JUMPER WIRE 4P	D20PWW0405E
		MOTOR PULLEY	PNW1634
		CARRIAGE MOTOR	VXM1033

D SW ASSY

SWITCHES AND RELAYS

	S8502		ASG7009
	S8501		DSG1017

OTHERS

	J8501	JUMPER WIRE 6P	D20PWY0610E

E AF ASSY (XWZ3089)

SEMICONDUCTORS

	IC2101, IC3101–IC3103, IC5691	BA4558F-HT
	IC5891, IC5892	BU4094BCF
	IC2201	HA12136AF
	IC2301	HA12211NT
	IC3001	LC75394NED
⚠	IC42	NJM7805FA
⚠	IC32	NJM7812FA
⚠	IC3301	STK407-070B
	Q3354, Q3601, Q3621	2SA1037K
⚠	Q71	2SA965
	Q2806	2SB1197K
	Q2803, Q2804	2SC1815
	Q2801	2SC2240
	Q2102, Q2201, Q2202, Q3101, Q3102	2SC2412K
	Q3353, Q3603, Q3605–Q3608	2SC2412K
	Q3081	2SD1858X
⚠	Q31	2SD2012
	Q2203, Q2204, Q2805, Q3311, Q3312	2SD2114K
	Q2301, Q2302	2SK368
	Q3313	DTA124EK
	Q2104, Q2105, Q3314	DTC124EK
	Q2103, Q2306, Q2802, Q2807	DTC143EK
⚠	Q3351	IRFI9Z34G
⚠	Q3352	IRFIZ34G
⚠	D3301, D3302	1SR139-100
	D2191, D2301–D2306, D3101, D3102	1SS133
	D3351–D3354, D3361, D3362, D3601	1SS133
	D3603, D3604, D3621, D3622	1SS133
	D3625, D3626, D5891, D73	1SS133
	D2102, D2103, D2201, D2202, D3051	1SS355
⚠	D3355, D3356	20E2-FC
	D3357, D3358	MTZJ10C
	D3083	MTZJ11C
	D35, D36	MTZJ15C
	D3359, D3360	MTZJ18B
	D74	MTZJ33C
	D3363, D3364	MTZJ39C
	D2001	MTZJ6.2A
	D48	MTZJ6.8C
	D75	MTZJ8.2B
⚠	D71, D72	S5688G

COILS AND FILTERS

	L3331, L3332	ATH-133
	L2801	ATX7002
	L1651, L3991	LAU4R7J
	L2301, L2302	LTA822J
	F2201, F2202	RTF1209

SWITCHES AND RELAYS

	RY3601	ASR7008

CAPACITORS

	C2303, C2304 (270pF)	ACG7024
	C2301, C2302	CCSQCH100D50
	C3047, C3048	CCSQCH101J50
	C2192	CCSQCH220J50
	C3319, C3320	CCSQCH3R0C50
	C3311, C3312	CEANL1R0M50
	C3317, C3318	CEANP220M35
	C3621	CEANP2R2M2A
	C3313, C3314	CEANP2R2M50
	C2207, C2803, C2810, C3045, C3046	CEAT100M50
	C3081, C3091, C33, C35, C3602	CEAT100M50
	C43	CEAT100M50
	C2002, C2316	CEAT101M16
	C71	CEAT101M2A
	C3303, C3304	CEAT101M50
	C2312, C2313, C3035, C3036	CEAT1R0M50
	C3107, C3108, C32, C42	CEAT1R0M50
	C2106, C2214, C2215, C2321, C2322	CEAT220M50
	C72	CEAT220M50
	C2001, C3601	CEAT221M16
⚠	C41	CEAT222M25
⚠	C31	CEAT222M35
	C2201, C2202, C2205, C2206	CEAT2R2M50
	C2212, C2213, C2319, C2320	CEAT2R2M50
	C3005–C3012, C3015–C3018	CEAT2R2M50
	C3039, C3040, C3104	CEAT2R2M50
	C2804, C2805, C3105	CEAT330M16
	C3106, C3109	CEAT4R7M50
	C3021, C3022	CEATR10M50
	C2203, C2204, C3101, C3102	CEATR22M50
	C3325	CEATR47M50
	C3027, C3028	CFTLA334J50
	C3023, C3024	CFTLA474J50
	C2802	CKCYB681K2H
	C5892	CKSQYB102K50
	C2315, C2317, C2318, C3053, C3098	CKSQYB103K50
	C3103	CKSQYB103K50
	C1651, C2191, C2193, C3099, C5891	CKSQYB104K25
	C2194	CKSQYB105K10
	C3033, C3034	CKSQYB122K50
	C2208, C2209	CKSQYB152K50
	C3315, C3316	CKSQYB222K50
	C2323, C2326	CKSQYB223K50
	C3029, C3030	CKSQYB273K50
	C2808, C2809	CKSQYB332K50
	C2333, C2334	CKSQYB392K50
	C2807	CKSQYB472K50
	C3111, C3112	CKSQYB473K25
	C2307, C2308, C2331, C2332	CKSQYB681K50
	C3013, C3014	CKSQYB681K50

Mark	No.	Description	Part No.
	C3019, C3020, C3031, C3032		CKSQYB682K50
	C3025, C3026		CKSQYB683K25
	C3331–C3333		CKSQYF104Z50
	C2801		CQHA822J2A
	C2210, C2211		CQMBA103J50
	C2806		CQMBA223J50

RESISTORS

	R2812		RD1/2LMF270J
	R2813		RD1/2LMF471J
	R2809		RD1/2LMF4R7J
	R72		RD1/2PM562J
	R3333, R3334		RD1/4LMF100J
	R3353, R3354		RD1/4PU101J
	R73		RD1/4PU103J
	R3081		RD1/4PU221J
	R3317, R3318		RD1/4PU683J
⚠	R3991, R3992		RS2LMF331J
	R3601, R3602		RS3LMFR22J
	VR2303–VR2306 (10kΩ)		VCP1156
	VR2301, VR2302 (100kΩ)		VCP1162
	VR2801, VR2802 (220kΩ)		VCP1164
	Other Resistors		RS1/10S□□□J

OTHERS

		15P CABLE HOLDER	51063-1505
	CN1052	22P FFC CONNECTOR	52045-2245
	CN5102	38P FFC CONNECTOR	52045-3845
	CN81	4P JUMPER CONNECTOR	52147-0410
	CN3331	4P SPEAKER TERMINAL	AKE7001
	CN2302	KR CONNECTOR	B2B-PH-K-S
	CN2303	KR CONNECTOR	B3B-PH-K-R
	CN2301	KR CONNECTOR 3P	B3B-PH-K-S
	JA1651	OPTICAL LINK OUT	GP1F32T
	CN3051	14P PLUG	KM200IB14
	JA3001, JA3441	2P PIN JACK	VKB1060
	CN3991	HEADPHONE JACK	XKN3001

E AF ASSY (XWZ3045)

SEMICONDUCTORS

	IC5691	BA4558F-HT
	IC5891	BU4094BCF
	IC2301	HA12211NT
	IC3001	LC75394NED
⚠	IC42	NJM7805FA
⚠	IC32	NJM7812FA
⚠	IC3301	STK407-050B
	Q3354, Q3601, Q3621	2SA1037K
⚠	Q71	2SA1837
	Q2803, Q2804	2SC1815
	Q3353, Q3603, Q3605–Q3608	2SC2412K
	Q3081	2SD1858X
⚠	Q31	2SD2012
	Q2805, Q3311, Q3312	2SD2114K
	Q2301, Q2302	2SK368
	Q3313	DTA124EK
	Q3314	DTC124EK
	Q2306	DTC143EK
⚠	Q3351	IRFI9Z34G
⚠	Q3352	IRFIZ34G

Mark	No.	Description	Part No.
⚠	D3301, D3302		1SR139-100
	D2301–D2306, D3351–D3354		1SS133
	D3361, D3362, D3601, D3603, D3604		1SS133
	D3621, D3622, D3625, D3626, D5891		1SS133
	D73		1SS133
	D3051		1SS355
⚠	D3355, D3356		20E2-FC
	D3357, D3358		MTZJ10C
	D3083		MTZJ11C
	D35, D36		MTZJ15C
	D3359, D3360		MTZJ18B
	D74		MTZJ33C
	D3363, D3364		MTZJ39C
	D2001		MTZJ6.2A
	D48		MTZJ6.8C
	D75		MTZJ8.2B
⚠	D72, D76		S5688G

COILS AND FILTERS

	L3331, L3332	ATH-133
	L2801	ATX7002
	L3991	LAU4R7J
	L2301, L2302	LTA822J

SWITCHES AND RELAYS

	RY3601	ASR7008

CAPACITORS

	C2303, C2304 (270pF)	ACG7024
	C2335–C2338	CCCCH270J50
	C2301, C2302	CCSQCH100D50
	C3047, C3048	CCSQCH101J50
	C3319, C3320	CCSQCH3R0C50
	C3311, C3312	CEANL1R0M50
	C3317, C3318	CEANP220M35
	C3621	CEANP2R2M2A
	C3313, C3314	CEANP2R2M50
	C73	CEAT100M2A
	C2810, C3045, C3081, C3091, C33	CEAT100M50
	C35, C3602, C43	CEAT100M50
	C2002, C2316	CEAT101M16
	C3303, C3304	CEAT101M50
	C2312, C2313, C32, C42	CEAT1R0M50
	C2321, C2322, C72	CEAT220M50
	C2001, C3601	CEAT221M16
	C71	CEAT221M63
⚠	C41	CEAT222M25
⚠	C31	CEAT222M35
	C2212, C2213, C2319, C2320	CEAT2R2M50
	C3005–C3010, C3015–C3018, C3039	CEAT2R2M50
	C3082	CEAT2R2M50
	C2804, C2805	CEAT330M16
	C3021, C3022	CEATR10M50
	C3011, C3012, C3325	CEATR47M50
	C3046	CEJA100M50
	C3040	CEJA2R2M50
	C3027, C3028	CFTLA334J50
	C3023, C3024	CFTLA474J50
	C2307, C2308	CKSQYB102K50
	C2315, C2317, C2318, C3053	CKSQYB103K50
	C3099, C5891	CKSQYB104K25
	C3033, C3034	CKSQYB122K50
	C3315, C3316	CKSQYB222K50

Mark	No.	Description	Part No.
	C2323, C2326, C3029, C3030		CKSQYB273K50
	C2808, C2809		CKSQYB332K50
	C2333, C2334		CKSQYB392K50
	C2807		CKSQYB472K50
	C2331, C2332, C3013, C3014		CKSQYB681K50
	C3019, C3020, C3031, C3032		CKSQYB682K50
	C3025, C3026		CKSQYB683K25
	C3331–C3333		CKSQYF104Z50
	C2801		CQHA822J2A
	C2806		CQMBA223J50
RESISTORS			
	R2812		RD1/2LMF270J
	R2809		RD1/2LMF4R7J
	R72		RD1/2PM222J
	R3333, R3334		RD1/4LMF100J
	R3353, R3354		RD1/4PU101J
	R73		RD1/4PU103J
	R3081		RD1/4PU221J
	R3317, R3318		RD1/4PU683J
⚠	R3991, R3992		RS2LMF331J
	R3601, R3602		RS2LMFR22J
	VR2802 (100kΩ)		VCP1162
	Other Resistors		RS1/10S□□□J
OTHERS			
		15P CABLE HOLDER	51063-1505
	CN1051	20P FFC CONNECTOR	52045-2045
	CN5102	38P FFC CONNECTOR	52045-3845
	CN81	4P JUMPER CONNECTOR	52147-0410
	CN3331	4P SPEAKER TERMINAL	AKE7001
	CN2302	KR CONNECTOR	B2B-PH-K-S
	CN2303	KR CONNECTOR	B3B-PH-K-R
	CN2301	KR CONNECTOR 3P	B3B-PH-K-S
	CN3051	14P PLUG	KM200IB14
	JA3001	2P PIN JACK	VKB1060
	CN3991	HEADPHONE JACK	XKN3001

F SECONDARY ASSY

(1) CONTRAST TABLE

XWZ3084 and XWZ3046 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3084	XWZ3046	
⚠	IC11,IC12 PROTECTOR	AEK7021 (7A)	AEK7019 (5A)	
⚠	IC21,IC22 PROTECTOR	AEK7046 (5A)	AEK7053 (4A)	
	C21,C22	CEAT332M50	CEAT222M50	

(2) PARTS LIST FOR XWZ3084

Mark	No.	Description	Part No.
SEMICONDUCTORS			
⚠	IC71 (1.25A)		AEK7010
⚠	IC31, IC41 (3A)		AEK7015
⚠	IC11, IC12 (7A)		AEK7021
⚠	IC21, IC22 (5A)		AEK7046
⚠	D11, D21		GBU4DL-5303
⚠	D31–D34, D41–D44		S5688G
CAPACITORS			
⚠	C11, C12 (220µF/63V)		ACH7071
⚠	C21, C22		CEAT332M50
OTHERS			
		15P CABLE HOLDER	51063-1505
	J11	JUMPER WIRE	D15A15-350-2651

G PRIMARY ASSY

Although XWZ3059 and XWZ3051 are different in part number, they consist of the same components.

PARTS LIST FOR XWZ3059

Mark	No.	Description	Part No.
CAPACITORS			
⚠	C3 (10000pF/AC250V)		ACG7020

H SUB TRANS ASSY

(1) CONTRAST TABLE

XWZ3060 and XWZ3052 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3060	XWZ3052	
⚠	R1 (2.2MΩ/ 1/2W)	RCN1080	Not used	
⚠	AN1 1P AC INLET	AKP7032	BKP1046	
	KN1	VNF1084	Not used	
	EARTH METAL FITTING			

(2) PARTS LIST FOR XWZ3060

Mark	No.	Description	Part No.
SEMICONDUCTORS			
⚠	IC81		NJM7805FA
	Q81		2SD1859X
	D85, D88–D90		1SS133
⚠	D81–D84		S5688G
TRANSFORMERS			
⚠	T2		ATT7027
SWITCHES AND RELAYS			
⚠	RY81		ASR7018
CAPACITORS			
	C83		CEAT100M50
⚠	C82		CEAT102M25
RESISTORS			
⚠	R1 (2.2MΩ/ 1/2W)		RCN1080
	Other Resistors		RD1/4PU□□□J
OTHERS			
		4P CABLE HOLDER	51048-0400
⚠	AN1	1P AC INLET	AKP7032
	H1, H2	FUSE CLIP	AKR7001
	J81	JUMPER WIRE 4P	D20PYY0425E
	KN1	EARTH METAL FITTING	VNF1084

Mark	No.	Description	Part No.

DISPLAY ASSY (XWZ3092 and XWZ3110)

(1) CONTRAST TABLE

XWZ3092 and XWZ3110 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3092	XWZ3110	
	D5597	1SS355	Not used	

(2) PARTS LIST FOR XWZ3092

SEMICONDUCTORS

IC5631	BA3835F
IC5601	BU2092F
IC5501	PDC048B
Q5501	2SA1037K
Q2903, Q2906, Q2908	2SB1132
Q5604, Q5801	2SC2412K
Q2910, Q2911	DTA124EK
Q5606	DTC124EK
Q2901, Q2904, Q2907, Q5502, Q5603	DTC143EK
Q5821	DTC143EK
D5593, D5811	1SS133
D5551–D5554, D5561–D5568	1SS181
D2901–D2903, D5569, D5570, D5597	1SS355
D5626, D5901	1SS355
D5612	BR5064X
D5608–D5611	MBG5064X
D5613–D5616	MPG5064X
D5617–D5620	SLP3118C51H
D5603–D5607, D5621	SLP9118C51H

COILS AND FILTERS

L5811	LAU220J

SWITCHES AND RELAYS

S5951	ASX7004
S5952	ASX7017
S5911–S5931	XSG3001

CAPACITORS

C5812 (0.047F/5.5V)	ACH1246
C5601	CCSQSL151J50
C5821	CEJA100M16
C5803	CEJA1R0M50
C5510, C5811, C5814	CEJA470M16
C5804	CKSQYB102K50
C5995, C5996	CKSQYB103K50
C5816, C5997–C5999	CKSQYB104K25
C5509, C5951–C5954	CKSQYB471K50
C5506–C5508	CKSQYB472K50
C5602, C5631–C5634, C5901	CKSQYF104Z50
C5503, C5504, C5813, C5822	CKSQYF473Z50

RESISTORS

R5529 (470Ω)	ACN7056
R5554, R5561, R5562 (1.5kΩ)	ACN7062
R5558, R5563, R5564 (47kΩ)	ACN7077
R5508	RA11T104J
R5506	RA7T104J

Mark	No.	Description	Part No.
	R2907, R2909, R2910, R5611, R5919		RD1/4PU102J
	R5915		RD1/4PU181J
	R5925		RD1/4PU331J
	R5605, R5606, R5612, R5613, R5926		RD1/4PU561J
	R2902, R5604, R5607–R5610		RD1/4PU681J
	R5927		RD1/4PU821J
	R2911–R2913		RS1/8S0R0J
	R5702		RS1/8S223J
	R5614		RS1/8S331J
	R2905		RS1/8S681J
	Other Resistors		RS1/10S□□□J

OTHERS

CN2901	19P FFC CONNECTOR	52045-1945
CN5501	38P FFC CONNECTOR	52045-3845
X5901	REMOTE RECEIVER UNIT	GP1U28X
V5621	FL TUBE	XAV3004
2902	FL HOLDER	XNG3008
X5501	CERAMIC RESONATOR (6MHz)	RSS1050

DISPLAY ASSY (XWZ3058 and XWZ3047)

(1) CONTRAST TABLE

XWZ3058 and XWZ3047 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		XWZ3058	XWZ3047	
	D5597	1SS355	Not used	

(2) PARTS LIST FOR XWZ3058

SEMICONDUCTORS

IC5501	PDC048B
Q5501	2SA1037K
Q2903, Q2906, Q2908	2SB1132
Q5604, Q5801	2SC2412K
Q2910, Q2911	DTA124EK
Q5606	DTC124EK
Q2901, Q2904, Q2907, Q5502	DTC143EK
Q5601–Q5603, Q5605, Q5821	DTC143EK
D5631, D5811	1SS133
D5551–D5554, D5563–D5568	1SS181
D2901–D2903, D5569, D5570, D5597	1SS355
D5626, D5901	1SS355
D5602	SLP3118C51H
D5601	SLP7118C51H
D5603, D5604, D5621	SLP9118C51H

COILS AND FILTERS

L5811	LAU220J

SWITCHES AND RELAYS

S5951	ASX7004
S5952	ASX7017
S5911–S5915, S5917–S5925	XSG3001
S5927–S5936	XSG3001

CAPACITORS

C5812 (0.047F/5.5V)	ACH1246
C5821	CEJA100M16
C5803	CEJA1R0M50
C5510, C5811, C5814	CEJA470M16
C5804	CKSQYB102K50

Mark	No.	Description	Part No.
	C5995, C5996		CKSQYB103K50
	C5816, C5997–C5999		CKSQYB104K25
	C5509, C5951–C5954		CKSQYB471K50
	C5506–C5508		CKSQYB472K50
	C5634, C5901		CKSQYF104Z50
	C5625		CKSQYF224Z25
	C5503, C5504, C5813, C5822		CKSQYF473Z50

RESISTORS

R5529 (470Ω)		ACN7056
R5554, R5561, R5562 (1.5Ω)		ACN7062
R5558, R5563, R5564 (47kΩ)		ACN7077
R5508		RA11T104J
R5506		RA7T104J
R2907, R2909, R2910, R5919		RD1/4PU102J
R5915		RD1/4PU181J
R5925		RD1/4PU331J
R5926		RD1/4PU561J
R2902		RD1/4PU681J
R5927		RD1/4PU821J
R2911–R2913, R5567		RS1/8S0R0J
R5702		RS1/8S223J
R5614		RS1/8S331J
R2905		RS1/8S681J
Other Resistors		RS1/10S□□□J

OTHERS

CN2901	17P FFC CONNECTOR	52045-1745
CN5501	38P FFC CONNECTOR	52045-3845
X5901	REMOTE RECEIVER UNIT	GP1U28X
5631	FL HOLDER	VNF1096
V5621	FL TUBE	XAV3003
X5501	CERAMIC RESONATOR (6MHz)	RSS1050

J CD SW LED ASSY

SEMICONDUCTORS

D5623		SLP3118C51H
D5624		SLP7118C51H
D5622		SLP9118C51H

SWITCHES AND RELAYS

S5937–S5941		XSG3001

RESISTORS

All Resistors		RS1/10S□□□J

OTHERS

J5501	JUMPER WIRE	D20PWW0615E

6. ADJUSTMENT

6.1 TUNER SECTION

FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	FM SG (1kHz, ± 75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Front End Sensitivity	98	0-30	98MHz	L6402 T6401	Adjust so that the DC voltage between the IC6201-pin 20 and GND becomes at maximum level.
2	TUNED IND. Lighting Level	98	18 ± 2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Note:
Before adjusting, make sure there is no gap between L6401 and L6402. If there is a gap between them, bring them into contact with each other first, and then make adjustments.

AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	Front End Sensitivity	999 (∗1)	35-45	999kHz (∗1)	T6201	Adjust so that the DC voltage between the IC6201-pin 20 and GND becomes at maximum level.

Note (∗1): For the area using 10kHz step, frequencies should be 1000kHz.

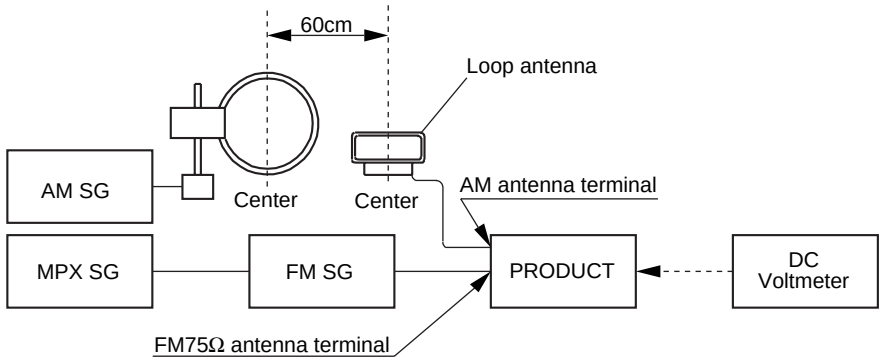


Fig. 1 AM and FM Adjustment Wiring Diagram

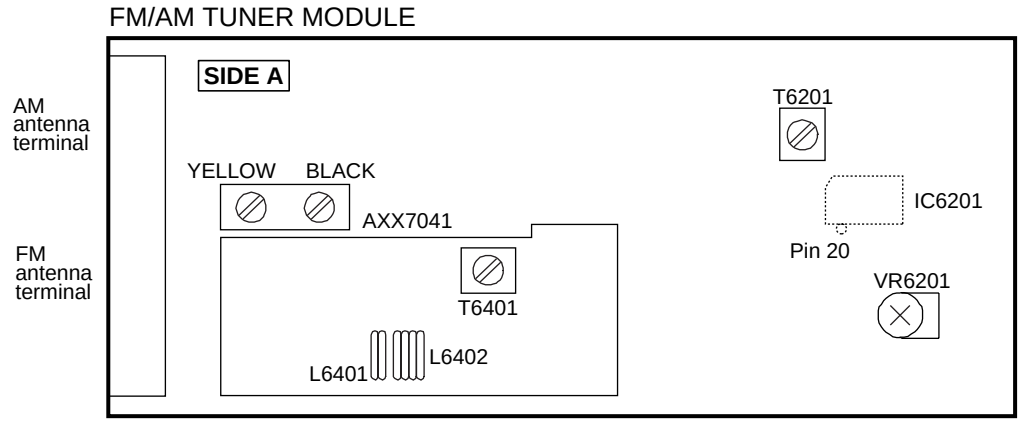


Fig. 2 Adjustment Point

6.2 CASSETTE DECK SECTION

6.2.1 For XR-A660

● Adjustment points and test points are shown in Fig.3, Fig.5 and Fig.7.

■ Mechanical Adjustment

● Test tape: NCT-111 (3kHz, 30min).

1. Tape Speed Adjustment

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Procedure	Remarks
1	Deck I PLAY	NCT-111 (Playback : 3kHz)	ADJ. VR on CASSETTE MECHA(Fig. 3)	TAPE TEST POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes 3000Hz ± 20Hz. Confirm that wow & flutter level is below 0.3% (in the reverse direction, confirm that the reading is within 3000Hz ± 60Hz).	

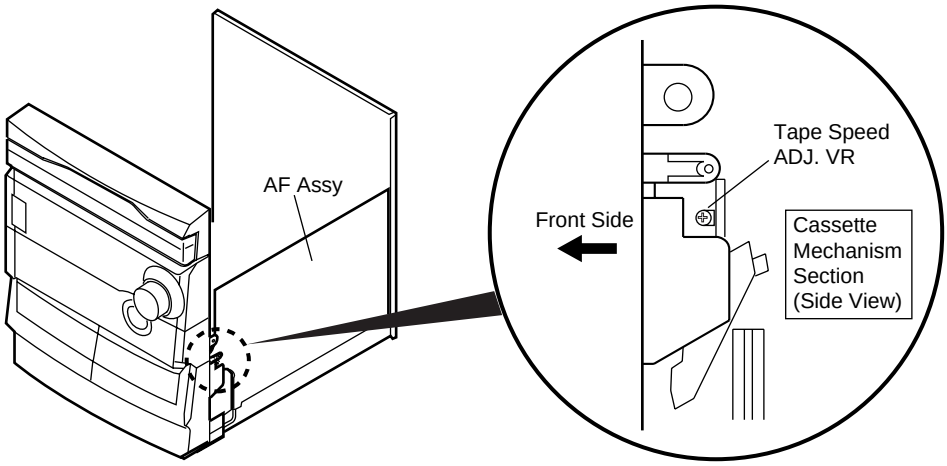


Fig.3 Tape Speed ADJ. Point

■ Electrical Adjustment

Check the following before starting.

(1) Confirm that the tape speed adjustment has been completed.
(2) Clean the heads and demagnetize them using a head eraser.
(3) Set the measurement level to 0 dBV = 1 Vrms.
(4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
STD-331E : For playback check
STD-632 : Normal blank tape
(5) Provide yourself with the following measuring devides:
- AC millivoltmeter
- Low-frequency oscillator
- Attenuator
- Oscilloscope

(6) Adjust both right and left channels unless otherwise specified.
(7) Turn the DOLBY NR switch off unless otherwize specified.
(8) Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
(9) Always follow the indicated adjustment order. Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

(1) Head Azimuth Adjustment
(2) Playback Level Adjustment

Recording Adjustment (Deck I)

(1) Bias Oscillation Frequency Adjustment
(2) Recording Bias Adjustment
(3) Recording Level Adjustment.
(4) ALC Operation Check

* As the reference recording level is 250nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160nwb/m). When adjusting, pay carefull attention to the type of tape used.

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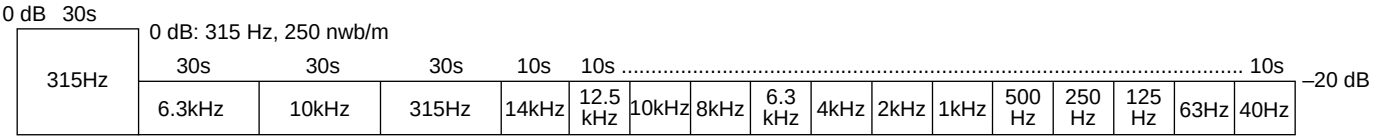


Fig. 4 STD-331E Test Tape

■ Playback Adjustment

(1) Head Azimuth Adjustment

● Do not switch between forward and reverse operation with the screwdriver inserted.

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 10kHz, -20dB)	Deck I	Head azimuth adjustment screw (Fig. 5)	TAPE TEST POINT (L, Rch) (AF Assy)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.
			Deck II				

(2) Playback Level Adjustment

● Since this adjustment determines playback Dolby NR level, perform it carefully.

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 315Hz,0dB)	Deck I	VR2303(Lch) VR2304(Rch)	TAPE TEST POINT (L, Rch) (AF Assy)	– 3.7dBV	
			Deck II	VR2305(Lch) VR2306(Rch)			

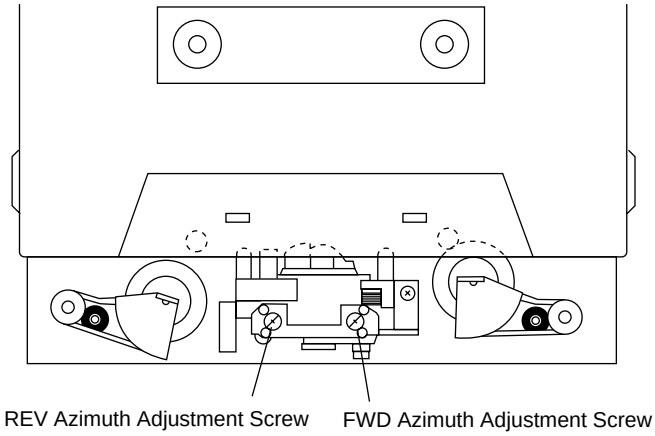


Fig. 5 Head Azimuth Adjustment Screw

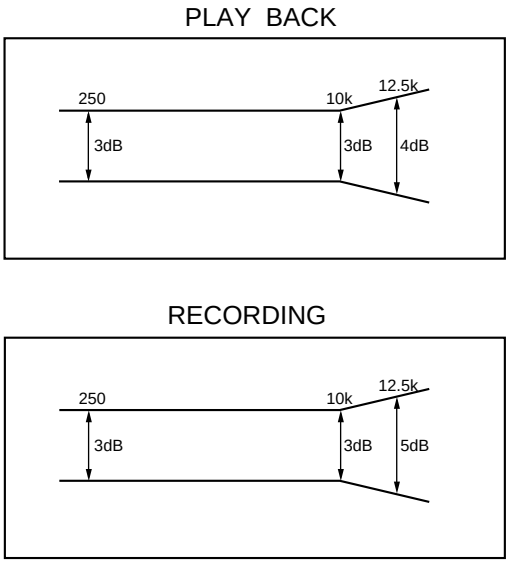


Fig. 6 Frequency Characteristics

■ Recording Adjustment

(1) Bias Oscillation Frequency Adjustment

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Load the STD-632 test tape and set the recording mode.	Deck II	————	————	Oscillation frequency to be 105.0kHz ± 2kHz.	If the REC/STOP button for four seconds while the power is in STAND BY mode, the frequency will decrease 2 to 3 kHz.
			DECK I	L2801 (AF Assy)	Between Ⓐ point in Fig.7 and GND.		

(2) Recording Bias Adjustment

● Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Input a 315Hz signal to the AUX terminal and set the input selector to AUX.	Deck II	————	TAPE TEST POINT (L, Rch) (AF Assy)	– 23.7dBV	
			DECK I	Input signal level			
2	REC → PLAY	Load the STD-632 test tape and record/playback the 315Hz and 10kHz signals. (see the Note below)	Deck II	————	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat adjustment until playback level of the 10kHz signal is within 0 ± 0.5dB from that of the 315Hz signal.	
			DECK I	VR2801(Lch) VR2802(Rch)			

Note : Set the 10kHz input signal level to the same value as the 315Hz input signal level of step 1.

(3) Recording Level Adjustment

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Input a 315Hz signal to the AUX terminal and set the input selector to AUX.	Deck II	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 7.7dBV	
			DECK I				
2	REC → PLAY	Load the STD-632 test tape and record/playback the 315Hz signal.	Deck II	————	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat recording, playback and adjustment until playback level of the 315Hz signal becomes – 7.7dBV.	
			DECK I	VR2301(Lch) VR2302(Rch)			

(4) ALC Operation Check

Step	Mode	Input Signal/Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	REC/ PAUSE	Input a 315Hz signal to the AUX terminal and set the input selector to AUX.	Input signal level	TAPE TEST POINT (L, Rch) (AF Assy)	– 8.2dBV	
2			Set to a level +10dB adove the input level at step1.		Confirm that the reading is – 2.2 ± 2.5dBV.	

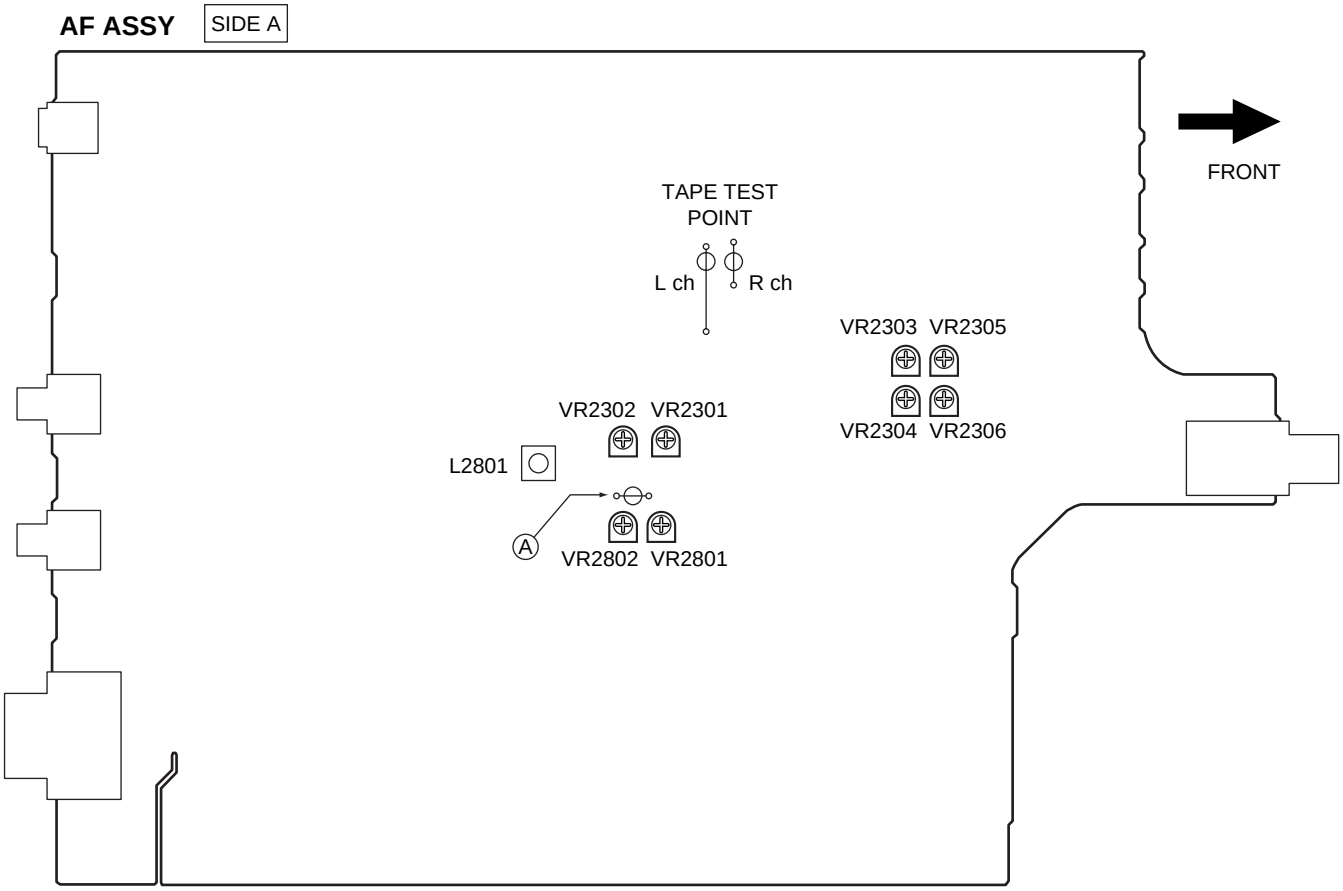


Fig.7 Adjustment and Measurement Points

6.2.2 For XR-A330

● Adjustment points and test points are shown in Fig.8, Fig.10 and Fig.11.

■ Mechanical Adjustment

● Test tape: NCT-111 (3kHz, 30min).

1. Tape Speed Adjustment

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Procedure	Remarks
1	Deck I PLAY	NCT-111 (Playback : 3kHz)	ADJ. VR on CASSETTE MECHA(Fig. 8)	TAPE TEST POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes 3000Hz ± 20Hz. Confirm that wow & flutter level is below 0.3% (in the reverse direction, confirm that the reading is within 3000Hz ± 60Hz).	

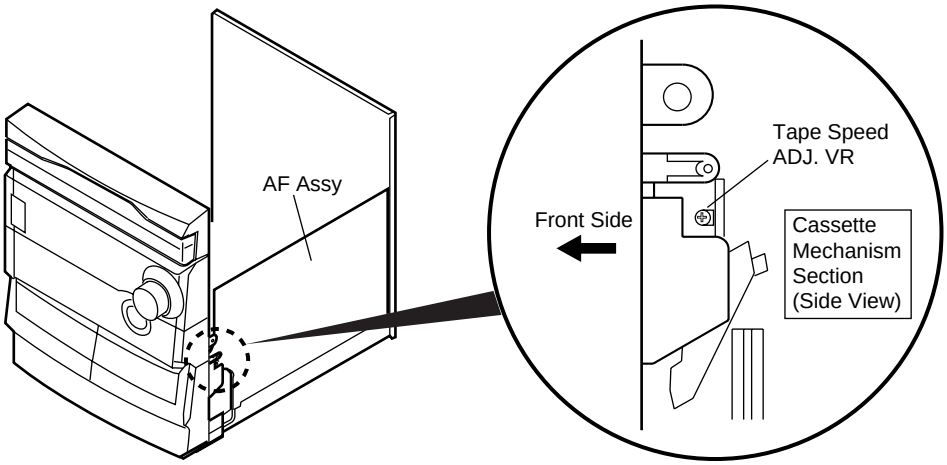


Fig.8 Tape Speed ADJ. Point

■ Electrical Adjustment

Check the following before starting.

(1) Confirm that the tape speed adjustment has been completed.
(2) Clean the heads and demagnetize them using a head eraser.
(3) Set the measurement level to 0 dBV = 1 Vrms.
(4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
STD-331E : For playback check
STD-632 : Normal blank tape
(5) Provide yourself with the following measuring devides:
- AC voltmeter (Noisemeter : filter off)
- AC millivoltmeter
- Low-frequency oscillator
- Attenuator
- Oscilloscope

(6) Adjust both right and left channels unless otherwise specified.
(7) Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
(8) Always follow the indicated adjustment order. Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

(1) Head Azimuth Adjustment

Recording Adjustment (Deck I)

(1) Bias Oscillation Frequency Adjustment
(2) Recording Bias Adjustment

* As the reference recording level is 250nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160nwb/m). When adjusting, pay carefull attention to the type of tape used.

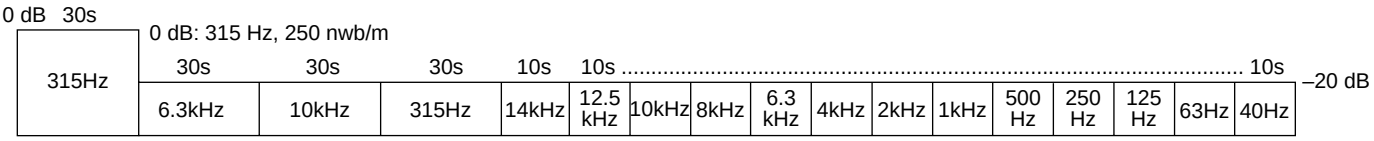


Fig. 9 STD-331E Test Tape

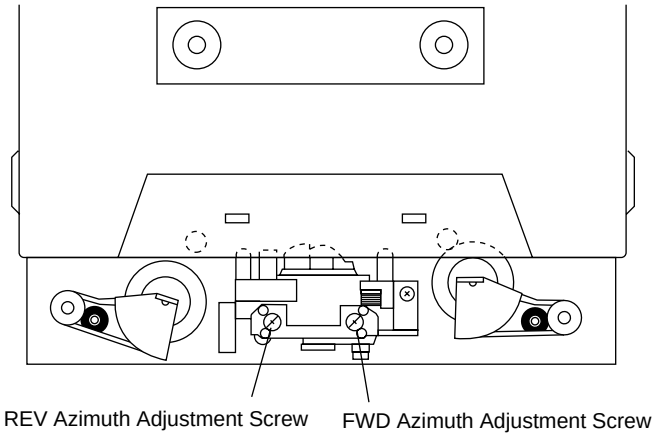


Fig. 10 Head Azimuth Adjustment Screw

■ Playback Adjustment

(1) Head Azimuth Adjustment

● Do not switch between forward and reverse operation with the screwdriver inserted.

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 10kHz, -20dB)	Deck I	Head azimuth adjustment screw (Fig. 10)	TAPE TEST POINT (L, Rch) (AF Assy)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.
			Deck II				

■ Recording Adjustment

(1) Bias Oscillation Frequency Adjustment

Step	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Load the STD-632 test tape and set the recording mode.	Deck II	————	————	Oscillation frequency to be 105.0kHz ± 2kHz.	
			DECK I	L2801 (AF Assy)	Between Ⓐ point in Fig. 11 and GND.		

(2) Recording Bias Adjustment

● Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

Step	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	REC	Load the STD-632 test tape and record (No signal)	Deck I	VR2802 (AF Assy)	BIAS TP POINT (AF Assy)	24V – 27V	
2	REC → PLAY	Load the STD-632 test tape. Record the 315Hz and 10kHz signals at -25dBV input level (check Ⓑ point) and playback.	Deck II	————	TAPE TEST POINT (L, Rch) (AF Assy)	Repeat adjustment until playback level of the 10kHz signal is within 0 ± 1.0dB from that of the 315Hz signal.	
			DECK I	VR2802 (AF Assy)			

Note : No connecting to BIAS TP POINT at Step 2 REC→PLAY.

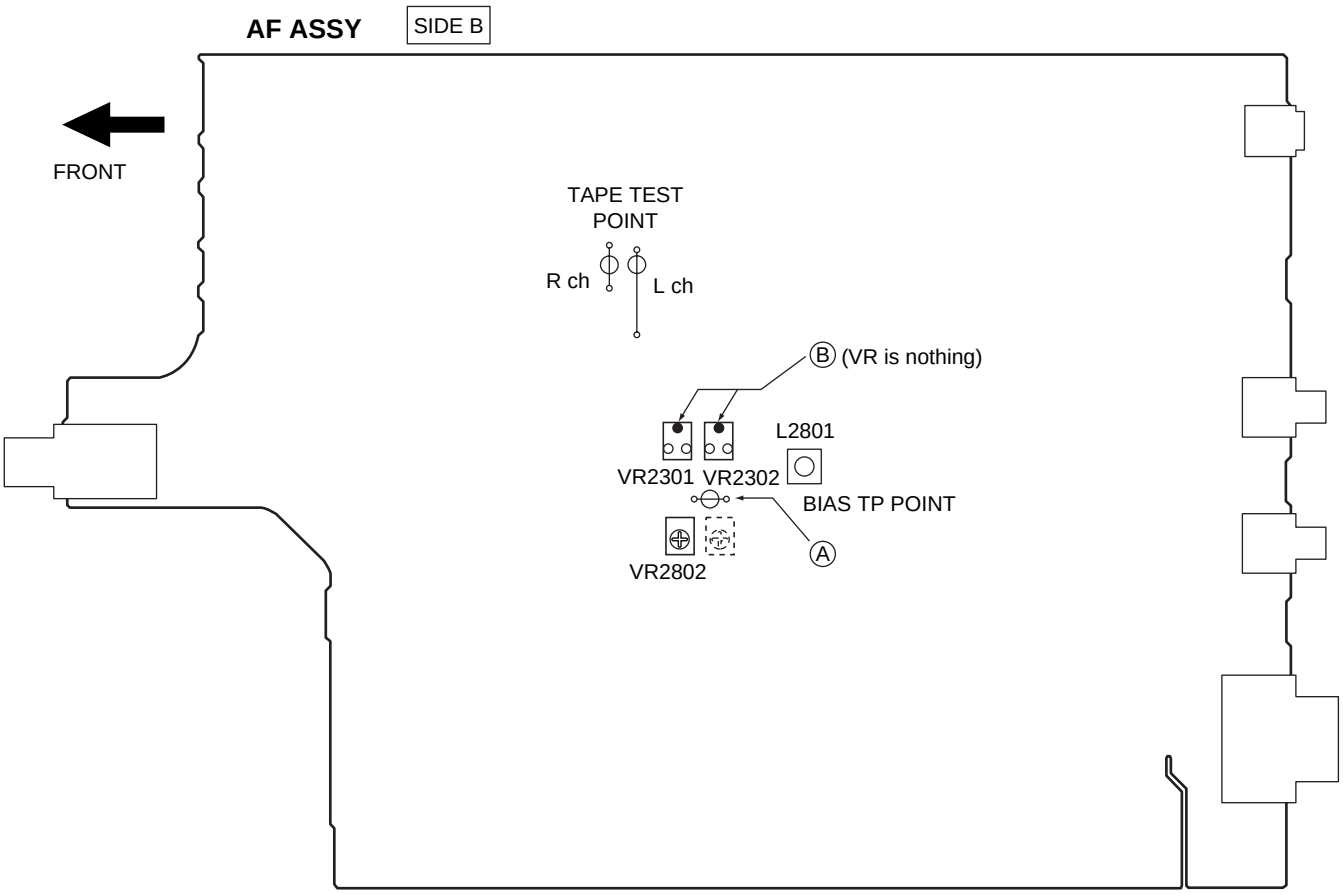


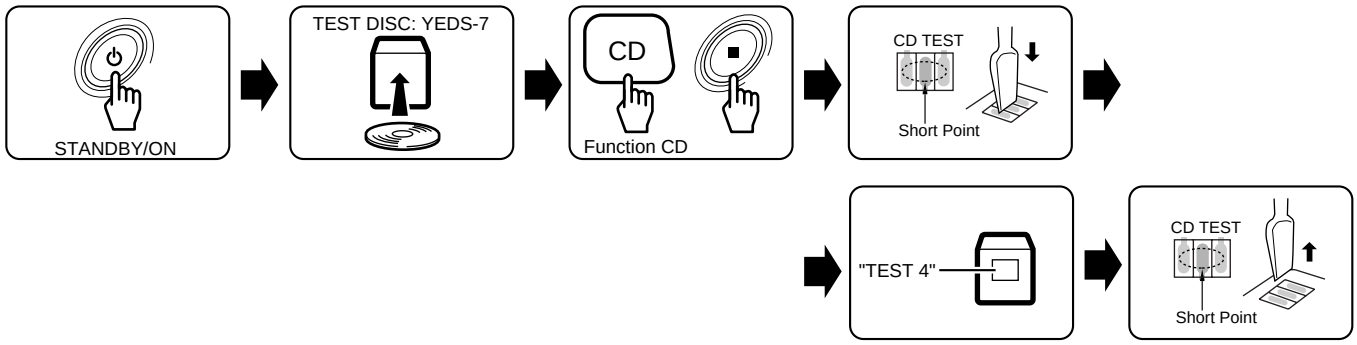
Fig.11 Adjustment and Measurement Points

6.3 TEST MODE

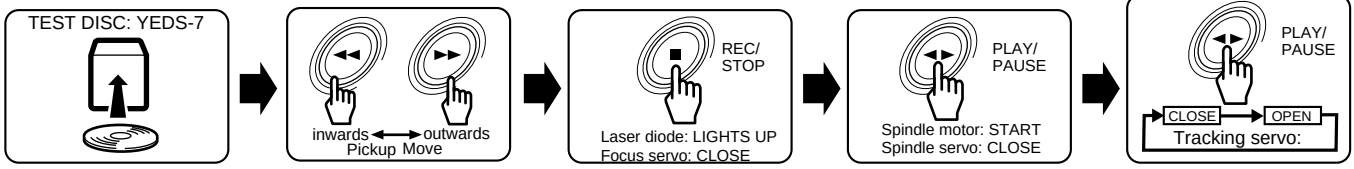
NOTE: There is no information to be shown in this CD adjustment.

■ How to Start/Cancel Test Mode

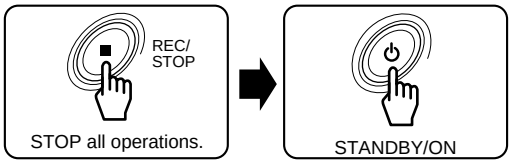
TEST MODE : ON



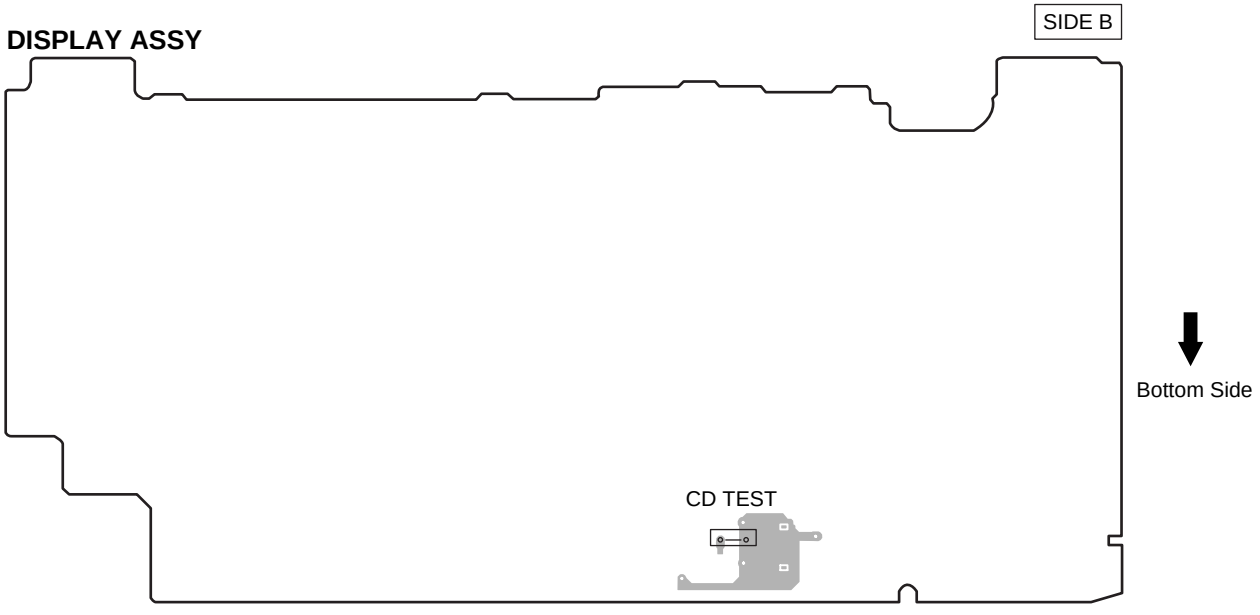
TEST MODE : PLAY



TEST MODE : STOP CANCEL



■ Test Point



7. GENERAL INFORMATION

7.1 PARTS

7.1.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ HA12136AF (AF ASSY : IC2201)

• Dolby B Type NR System IC

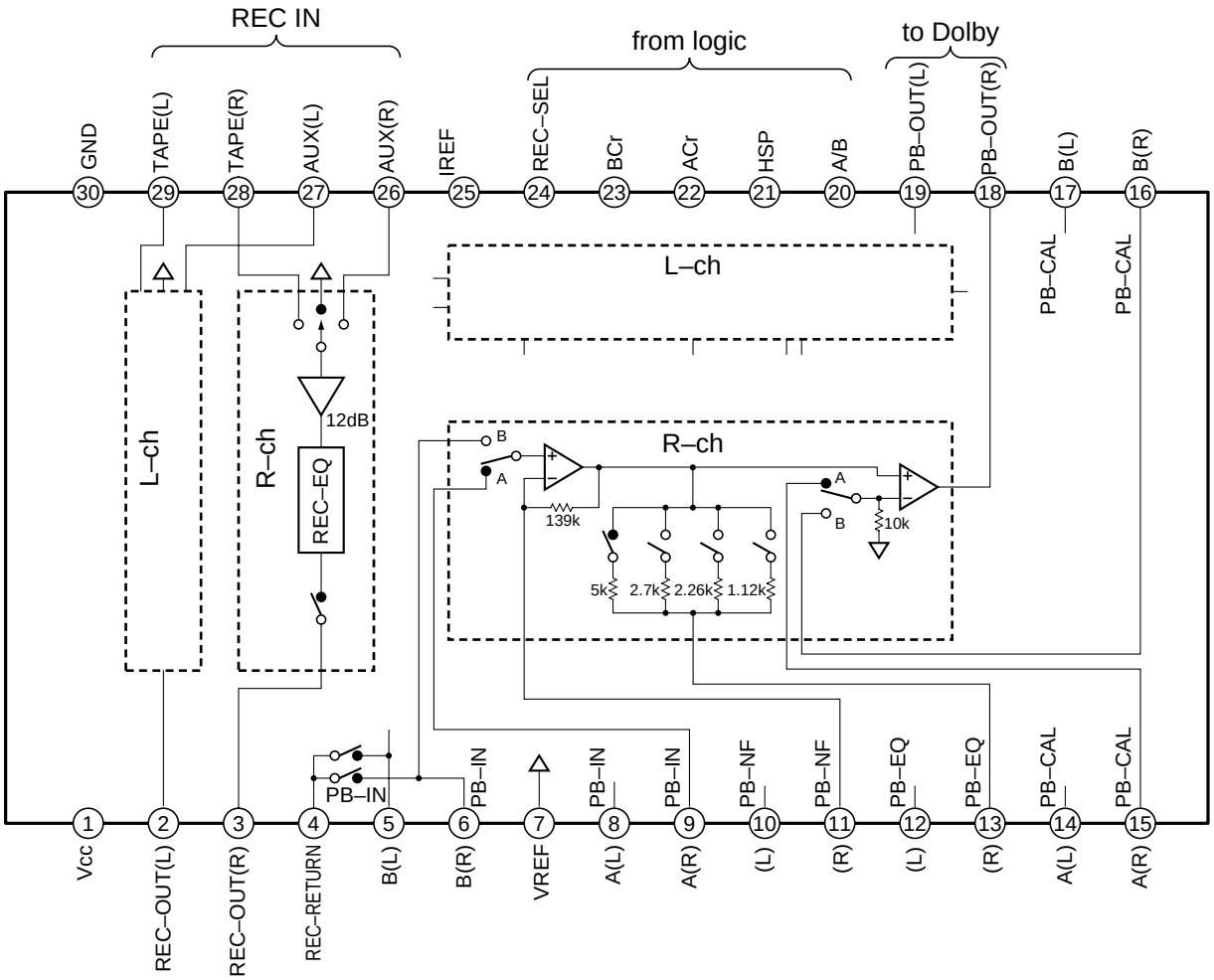
●Pin Function

No.	Pin Name	Function	No.	Pin Name	Function
1	REC IN	Recording (Encode) input	9	REC OUT	Recording (Encode) output
2	Vcc	Power supply	10	DET	Time constant pin for the level detector
3	PB IN	Playback (Decode) input	11	PB OUT	Playback (Decode) output
4	Vref	Reference voltage	12	REC/PB	Mode control pin for REC/PB (Encode/Decode) "H" : REC (Encode), "L" : PB (Decode)
5	NR ON/OFF	Mode control pin for NR ON/OFF "H" : NR ON, "L" : NR OFF	13	BIAS	Reference current input pin for the active filters
6	PB OUT	Playback (Decode) output	14	PB IN	Playback (Decode) input
7	DET	Time constant pin for the level detector	15	GND	Ground
8	REC OUT	Recording (Encode) output	16	REC IN	Recording (Encode) input

■ HA12211NT (AF ASSY : IC2301)

• REC Equalizer and PB Equalizer System IC

●Block Diagram



●Pin Function

No.	Pin Name	Function	No.	Pin Name	Function
1	Vcc	Vcc pin	16	PB-Cal B (R)	Feed back input for gain adjustment
2	RECOUT (L)	REC-EQ output	17	PB-Cal B (L)	
3	RECOUT (R)		18	PB OUT (R)	PB output
4	REC-RETURN	REC return	19	PB OUT (L)	
5	PB-IN B (L)	PB B deck input	20	A/B	Mode control input
6	PB-IN B (R)		21	HSP	
7	VREF	Reference voltage	22	Acr	
8	PB-IN A (L)	PB A deck input	23	Bcr	
9	PB-IN A (R)		24	REC-SEL	Mode control input
10	PB-NF (L)	PB EQ feed back	25	IREF	Equalizer reference current input
11	PB-NF (R)		26	AUX (R)	REC-EQ input
12	PB-EQ (L)	NAB output	27	AUX (L)	
13	PB-EQ (R)		28	TAPE (R)	
14	PB-Cal A (L)	Feed back input for gain adjustment	29	TAPE (L)	
15	PB-Cal A (R)		30	GND	GND pin

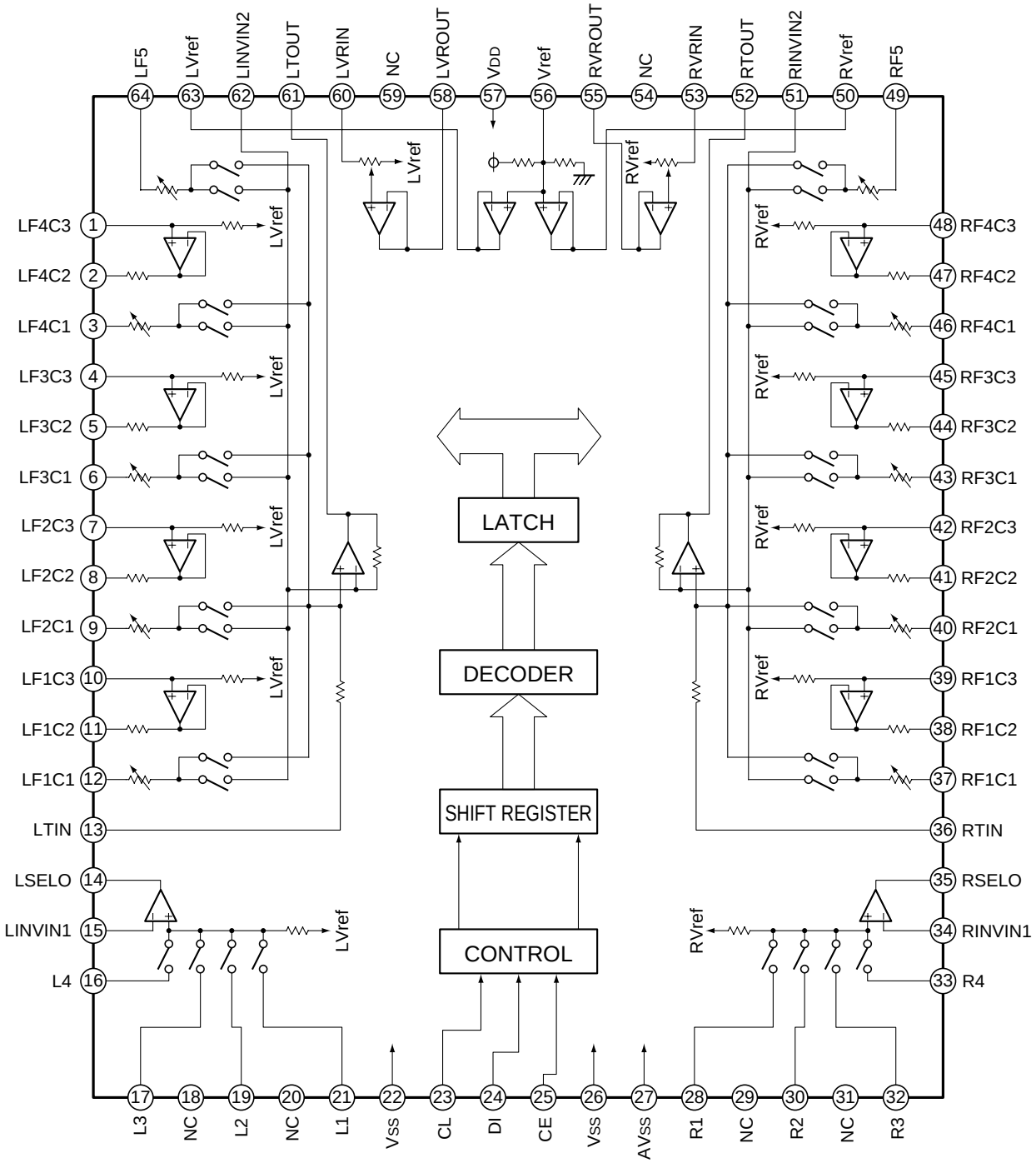
■ LC75394NED (AF ASSY : IC3001)

• Electrical Volume IC

●Pin Function

No.	Pin Name	Function	No.	Pin Name	Function
1	LF4C3	F4 band control block of L ch External capacitor connection pin	33	R4	Signal input
2	LF4C2		34	RINVIN1	Inverting input of OP amp. for input gain setting
3	LF4C1		35	RSELO	Input selector output
4	LF3C3	F3 band control block of L ch External capacitor connection pin	36	RTIN	Tone control input pin that is drived with low-impedance
5	LF3C2		37	RF1C1	F1 band control block of R ch External capacitor connection pin
6	LF3C1		38	RF1C2	
7	LF2C3	F2 band control block of L ch External capacitor connection pin	39	RF1C3	
8	LF2C2		40	RF2C1	F2 band control block of R ch External capacitor connection pin
9	LF2C1		41	RF2C2	
10	LF1C3	F1 band control block of L ch External capacitor connection pin	42	RF2C3	
11	LF1C2		43	RF3C1	F3 band control block of R ch External capacitor connection pin
12	LF1C1		44	RF3C2	
13	LTIN	Tone control input pin that is drived with low-impedance	45	RF3C3	
14	LSELO	Input selector output	46	RF4C1	F4 band control block of R ch External capacitor connection pin
15	LINVIN1	Inverting input of OP amp. for input gain setting	47	RF4C2	
16	L4	Signal input	48	RF4C3	
17	L3		49	RF5	F5 band control block External capacitor connection pin
18	NC	Non connection	50	RVref	Common pin of volume, tone and input selector blocks
19	L2	Signal input	51	RINVIN2	Inverting input of OP amp. for graphic equalizer
20	NC	Non connection	52	RTOUT	Tone control output
21	L1	Signal input	53	RVRIN	Volume input pin that is drived with low-impedance
22	VSS	Ground of internal logic system	54	NC	Non connection
23	CL	Serial data and clock input for control	55	RVROUT	Volume output pin
24	DI		56	Vref	VDD/2 voltage generating block Connect a capacitor between Vref and VSS.
25	CE	Chip enable pin H: Enable data transfer	57	VDD	Power supply
26	VSS	Ground of internal logic system	58	LVROUT	Volume output pin
27	AVSS	Ground of internal OP amp.	59	NC	Non connection
28	R1	Signal input	60	LVRIN	Volume input pin that is drived with low-impedance
29	NC	Non connection	61	LTOUT	Tone control output
30	R2	Signal input	62	LINVIN2	Inverting input of OP amp. for graphic equalizer
31	NC	Non connection	63	LVref	Common pin of volume, tone and input selector blocks
32	R3	Signal input	64	LF5	F5 band control block External capacitor connection pin

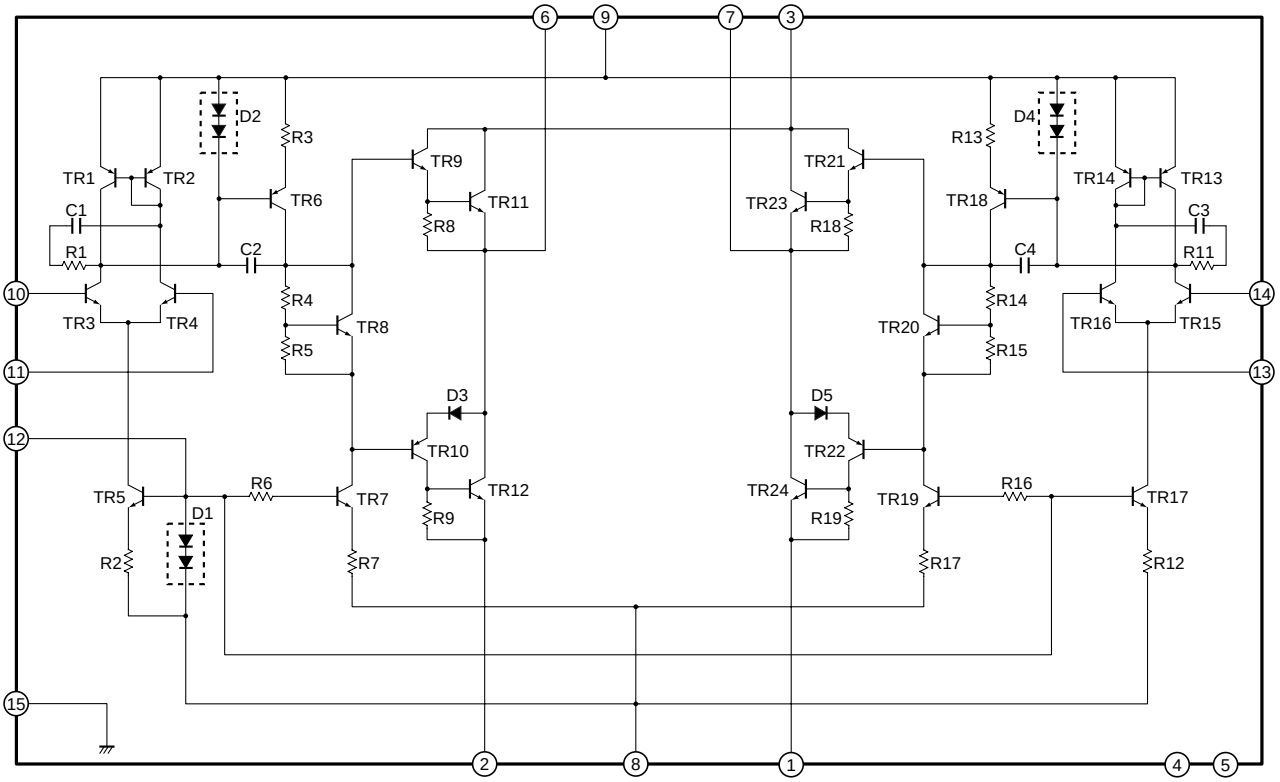
●Block Diagram



■ STK407-070B (AF ASSY : IC3301)(XR-A660)
STK407-050B (AF ASSY : IC3301)(XR-A330)

• **Audio IC**

●Block Diagram



■ PDC048A (DISPLAY ASSY : IC5501)

• System Control Microcomputer

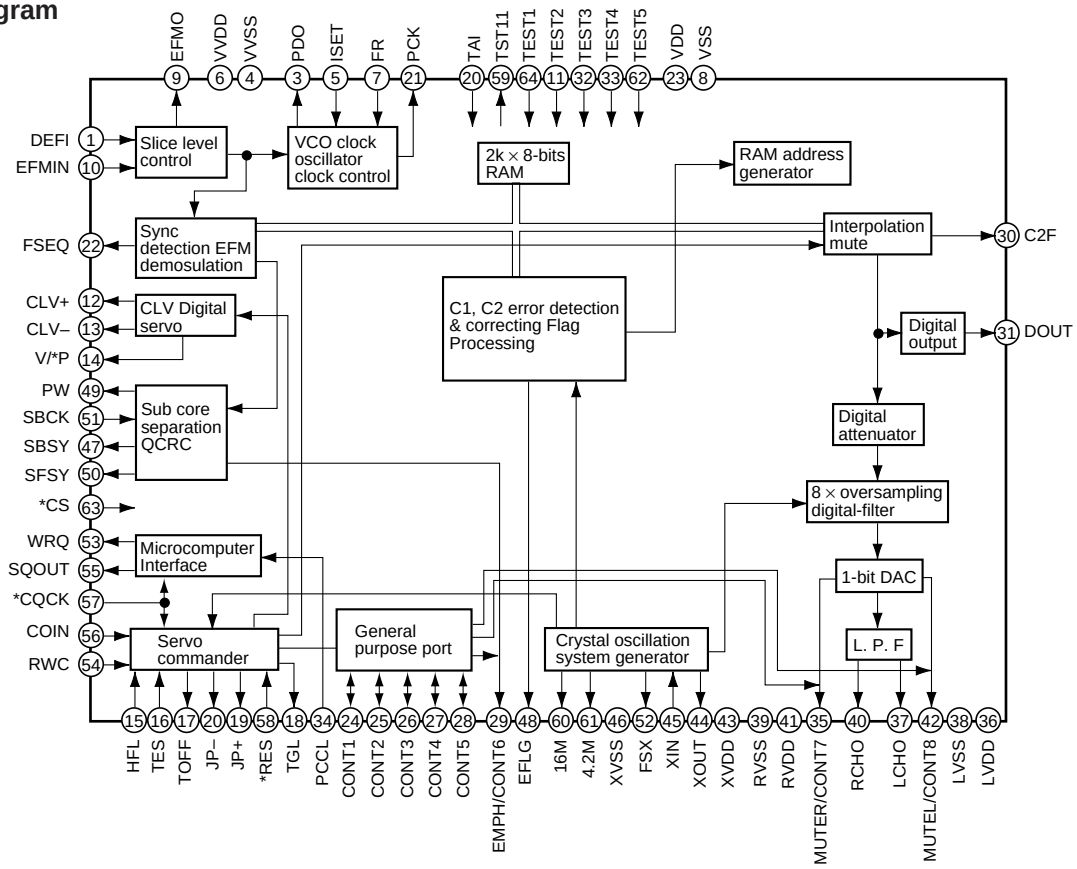
●Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	CD RESET	O	Reset output for CD LSI	51	VFDP	–	
2	CD CE	O	CD LSI strobe output	52	S*/D5593	*	FL display control anode
3	CD DRF	I	RF level detection input	53	S*/D5592	*	
4	NC	O	Not used	54	S*/D5591	*	
5	EXP CLK	O	Clock output for EXP IC (BU4094), LED IC (BU2092) and Prologic IC (LV1035)	55	S*	O	
6	EXP DATA	O	Data output for EXP IC (BU4094), LED IC (BU2092) and Prologic IC (LV1035)	56	S*	O	
7	EXP CE	O	EXP IC (BU4094), LED IC (BU2092) strobe output	57	S*	O	
8	LED1/SPE A	O	LED control / Spectrum analyzer IC (BU1923) output control	58	S*	O	
9	LED2/SPE B	O		59	S*	O	
10	LED3/SPE C	O		60	S*	I/O	
11	AC	I	AC pulse input (for clock , power supply monitor)	61	S*	I/O	
12	XRESET	I	CPU reset input	62	S*	I/O	
13	REEL1	I	Pulse input for deck 2 reel	63	S*/CLAMP	I/O	
14	REEL2	I	Pulse input for deck 1 reel	64	S*/OPEN	I/O	
15	VSS	–	Ground	65	S*/INSIDE	I/O	
16	CF1	I		66	S*/CDISC123	I/O	
17	CF2	O		67	S*/ARR	I/O	
18	VDD	–	power supply	68	S*/ARF	I/O	
19	KEY1	I	Front key input	69	S*/MODE1	I/O	
20	MS	I	Deck MS signal input	70	S*/MODE2	I/O	
21	ST/TUNE	I	Tuner tuned (STEREO) detection	71	S*/HALF1	I/O	
22	NC	I	Not used	72	VDD	–	Power supply
23	TIMER LED	O	LED control (for timer) (XR-A660 only)	73	S*/HALF2	I/O	FL display control anode
24	KEY2	I	Front key input	74	S*/CrO2_1	I/O	
25	SPE-IN	I	Spectrum analyzer signal input	75	S*/CrO2_2	I/O	
26	KEY3	I	Front key input	76	SCAN ON	O	Key scan input control
27	CD WRQ	I	CD subcode Q data OK signal input	77	SOL2	O	Deck 1 solenoid control
28	RDS CLK	I	Clock input for RDS IC (BU1923)	78	SOL1	O	Deck 2 solenoid control
29	REMOCON	I	Remote control signal input	79	MOTOR	O	Deck motor control
30	G*	O	FL display control anode	80	RDSDATA	I	Data input for RDS
31	G*			81	VOLJOG1	I	Pulse input for volume jog
32	G*			82	VOLJOG2		
33	G*			83	PLL CE	O	Tuner PLL IC strobe output
34	G*			84	NC	–	Not used
35	G*			85	EVOL CE	O	Main volume control IC (LC75394) strobe output
36	G*			86	POWER	O	Main power control
37	G*			87	LINE MUTE	O	Line mute control
38	G*			88	TIMER LED /LED CE	O	LED control (for TIMER) / LED control IC (BU2092) strobe output
39	G*			89	VSS	–	Ground
40	G*			90	VDD	–	Power supply
41	G*	O	FL display control anode (XR-A660 only)	91	NC	I	No connection
42	G*			92	NC		
43	G*			93	MORP JOG1	I	Pulse input for sound morphing jog
44	G*			94	MORP JOG2		
45	G*			95	SYSDATA	O	Serial data output
46	VDD	–	Power supply	96	TXDATA	I	Serial data input
47	S*/D5597	O	FL display control anode	97	SCLK	O	Serial clock output
48	S*/D5596	O		98	CD DATA	O	Serial data output for CD LSI
49	S*/D5595	*		99	SQ OUT	I	Serial data (Q DATA) input for CD LSI
50	S*/D5594	*		100	CD CLK	O	Serial clock output for LSI

■ LC78622NE (CD ASSY : IC8301)

• CD DSP IC

● Block Diagram



● Pin Function

No.	Pin Name	I/O	Function	
1	DEFI	I	Defect detection signal (DEF) input pin (Must be connected to 0V when unused).	
2	TAI	I	PLL pins	Test input pin A pull-down resistor is built-in. Must be connected to 0V.
3	PDO	O		External VCO control phase comparator output pin
4	VVSS	–		Internal VCO ground pin Must be connected to 0V.
5	ISET	AI		PDO output current adjustment resistor connection pin
6	VVDD	–		Internal VCO power supply pin
7	FR	AI		VCO frequency range adjustment
8	VSS	–	Digital system ground pin Must be connected to 0V.	
9	EFMO	O	Slice level control	EFM signal output pin
10	EFMIN	I		EFM signal input pin
11	TEST2	I	Test input pin A pull-down resistor is built-in. Must be connected to 0V.	
12	CLV+	O	Disc motor control output Can be set to three-value output by microprocessor command.	
13	CLV–	O		
14	V/*P	O	Rough servo/phase control automatic switching monitor output pin Outputs a high level during rough servo a low level.	
15	HFL	I	Track detection signal input pin This is a Schmitt input.	
16	TES	I	Tracking error signal input pin This is a Schmitt input.	
17	TOFF	O	Tracking off output pin	
18	TGL	O	Tracking gain switching output pin Increase the gain when low.	
19	JP+	O	Track jump output Three-value output is also possible when specified by microprocessor command.	
20	JP–	O		

No.	Pin Name	I/O	Function	
21	PCK	O	EFM data playback clock monitor pin Output pin 4.3218MHz when the phase is locked.	
22	FSEQ	O	Synchronization signal detection output pin Output a high level when the synchronization signal detected from the EFM signal and the internaly generated synchronization signal range.	
23	VDD	–	Digital system power supply pin	
24	CONT1	I/O	General-purpose 1	Controlled by serial data commands from the microprocessor. Any of these that are unused must be either set up as input pin ports and connected to 0V, or set up as output pin ports and left open.
25	CONT2		General-purpose 2	
26	CONT3		General-purpose 3	
27	CONT4		General-purpose 4	
28	CONT5		General-purpose 5	
29	EMPH/CONT6	O	De-emphasis monitor pin A high level indicates playback of a de-emphasis disk. / General-purpose 6	
30	C2F	O	C2 flag output pin	
31	DOUT	O	Digital output pin (EIJA format)	
32	TEST3	I	Test input pin A pull-down resistor is built-in. Must be connected to 0V.	
33	TEST4	I		
34	PCCL	I	General-purpose input / output command identifying pin Must be connected to 0V when used with functions similar to those of LC78622E. H: Control possible only for the general-purpose input / output port command L: Control possible for all commands	
35	MUTEL/CONT7	O	Left channel one-bit D/A converter	Left channel mute output pin
36	LVDD	–		Left channel power supply pin
37	LCHO	O		Left channel output pin
38	LVSS	–		Left channel ground pin Must be connected to 0V.
39	RVSS	–	Right channel one-bit D/A converter	Right channel ground pin Must be connected to 0V.
40	RCHO	O		Right channel output pin
41	RVDD	–		Right channel power supply pin
42	MUTER/CONT8	O		Right channel mute output pin
43	XVDD	–	Crystal oscillator power supply pin	
44	XOUT	O	Connections for a 16.9344MHz crystal oscillator element pin	
45	XIN	I		
46	XVSS	–	Crystal oscillator ground pin Must be connected to 0V.	
47	SBSY	O	Subcode clock synchronization signal output pin	
48	EFLG	O	C1, C2 single and double error correction monitor pin	
49	PW	O	Subcode P, Q, R, S, T, U and W output pin	
50	SFSY	O	Subcode frame synchronization signal output pin This signal falls when the subcode are in standby state.	
51	SBCK	I	Subcode readout clock input pin This is a Schmitt input. (Must be connected to 0V when unused.)	
52	FSX	O	Output pin for the 7.35kHz synchronization signal divided from the crystal oscillator	
53	WRQ	O	Subcode Q output standby output pin	
54	RWC	I	Read/write control input pin This is a Schmitt input.	
55	SQOUT	O	Subcode Q output pin	
56	COIN	I	Command input pin from control microprocessor	
57	*CQCK	I	Input for both the command input acquisition clock and the SQOUT pin subcode readout clock input pin. This is a Schmitt input.	
58	*RES	I	Reset input pin This pin must be set low briefly after power is first applied.	
59	TST11	O	Test output pin Leave open. (Normally output a low level.)	
60	16M	O	16.9344MHz output pin	
61	4.2M	O	4.2336MHz output pin	
62	TEST5	I	Test input pin A pull-down resistor is built-in. Must be connected to 0V.	
63	*CS	I	Chip select input pin A pull-down resistor is built-in. Must be connected to 0V if not controlled.	
64	TEST1	I	Test input pin No pull-down resistor. Must be connected to 0V.	

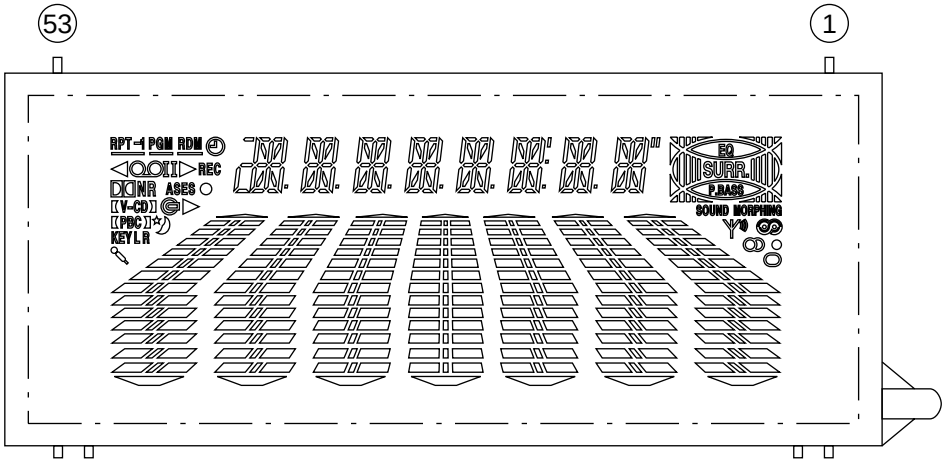
Note: The same potential must be supplied to all power supply pins, i.e., VDD, VVDD, LVDD, RVDD and XVDD.

7.1.2 DISPLAY

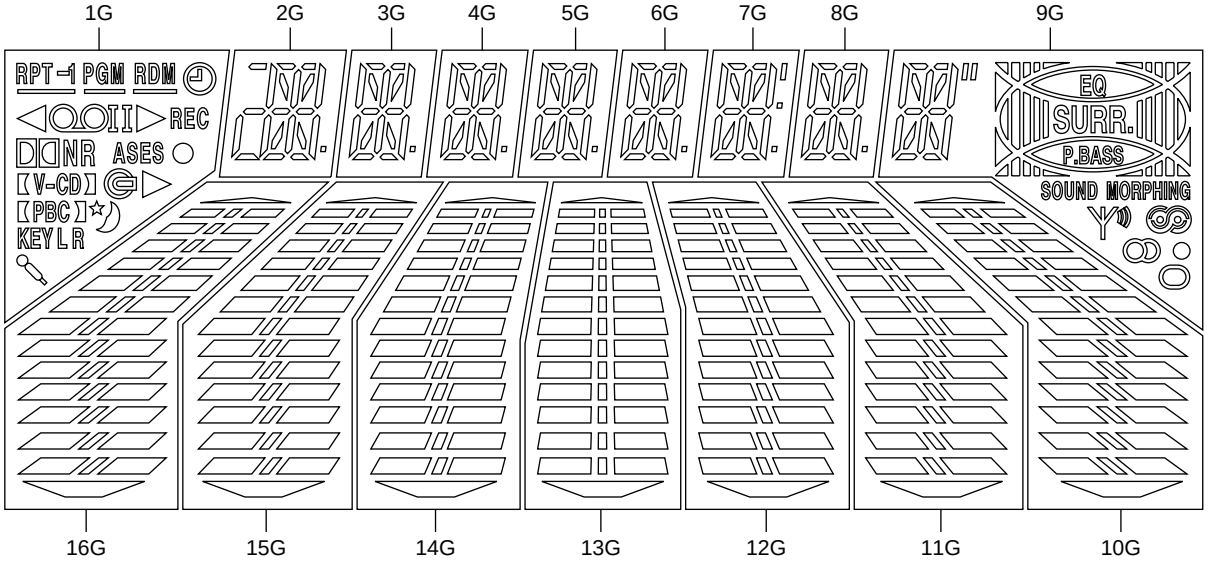
■ XAV3004 (DISPLAY ASSY : V5621)(XR-A660)

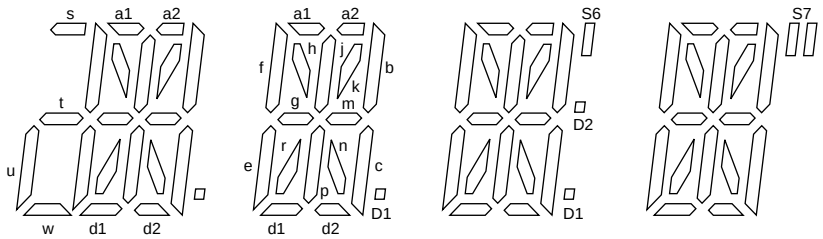
• FL Display

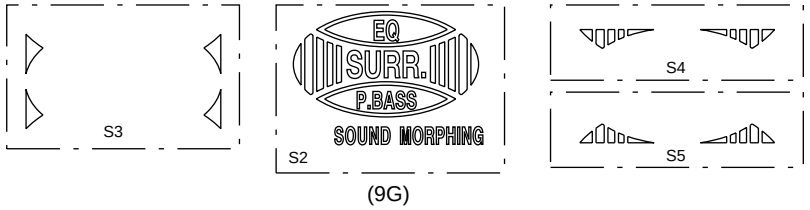
• Pin Assignment

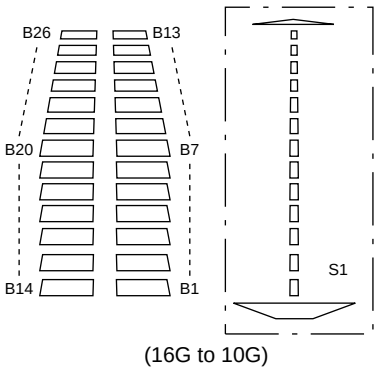


• Grid Assignment









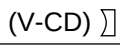
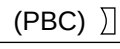
• Pin Connection

Pin No.	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27
Connection	F2	F2	F2	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	15G	16G	P1	P2	P3	P4	P5	P6

Pin No.	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Connection	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	NP	NP	F1	F1	F1

NOTE 1) F1, F2..... Filament
2) NP..... No pin
3) DL..... Datum Line
4) 1G to 16G..... Grid

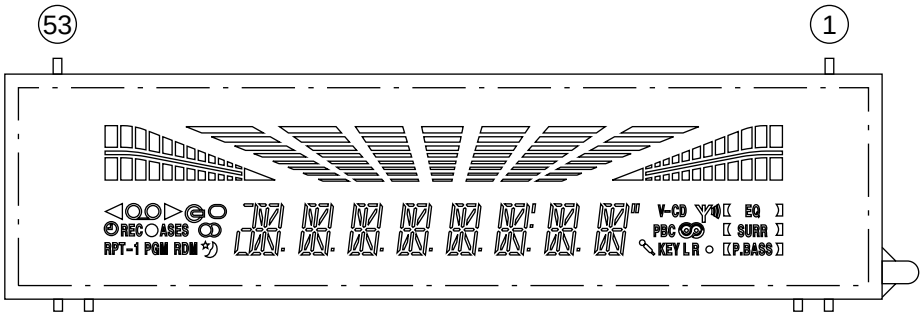
• Anode Connection

	1G	2G	3G to 6G	7G	8G	9G	10G to 16G
P1	–	a1	a1	a1	a1	a1	B14
P2		a2	a2	a2	a2	a2	B15
P3		h	h	h	h	h	B16
P4		j	j	j	j	j	B17
P5		k	k	k	k	k	B18
P6		b	b	b	b	b	B19
P7	(Left)	f	f	f	f	f	B20
P8		g	g	g	g	g	B21
P9	(Right)	m	m	m	m	m	B1
P10	(Upper right)	c	c	c	c	c	B2
P11		e	e	e	e	e	B3
P12		r	r	r	r	r	B4
P13		p	p	p	p	p	B5
P14		n	n	n	n	n	B6
P15		d1	d1	d1	d1	d1	B7
P16		d2	d2	d2	d2	d2	B8
P17		s	–	–	–	S7	B22
P18	(Under)	t	–	–	–	S2	B23
P19		u	–	–	–	S3	B24
P20		w	–	–	–	S4	B25
P21		–	–	–	–	S5	B9
P22		–	–	–	–		B10
P23		–	–	–	–		B11
P24		–	–	–	–		B12
P25		D1	D1	D1	D1	○	B26
P26	–	–	–	D2	–		B13
P27	–	–	–	S6	–	–	S1

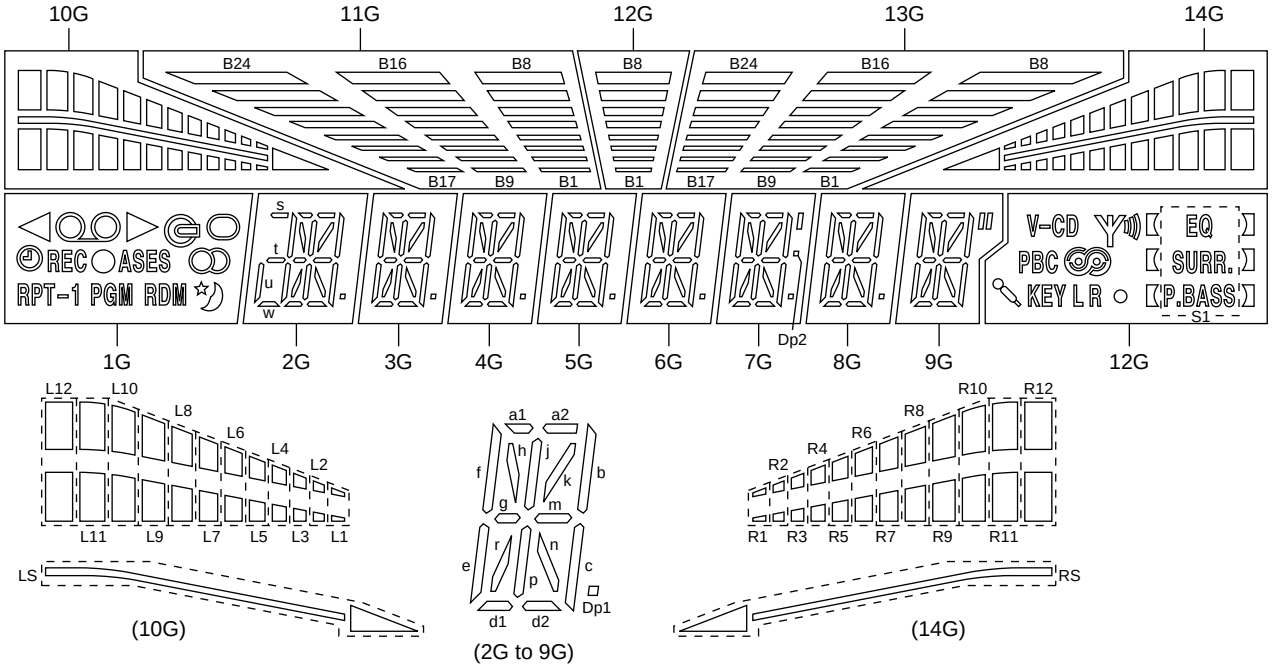
■ XAV3003 (DISPLAY ASSY : V5621) (XR-A330)

• FL Display

• Pin Assignment



• Grid Assignment



• Pin Connection

Pin No.	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27
Connection	F2	F2	NP	NP	NX	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	NX	NX	P1	P2	P3	P4	P5	P6

Pin No.	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Connection	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	NX	NP	NP	F1	F1

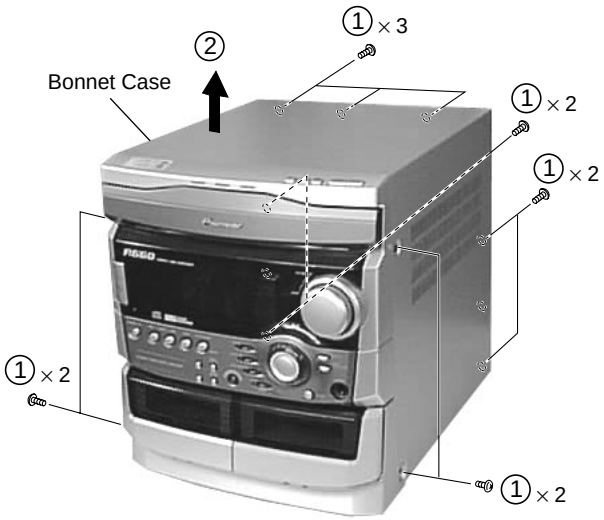
NOTE 1) F1, F2..... Filament
2) NP..... No pin
3) NX..... No extend pin
4) DL..... Datum Line
5) 1G to 14G..... Grid
6) Set view angle to 25.8° minimum at lower side.

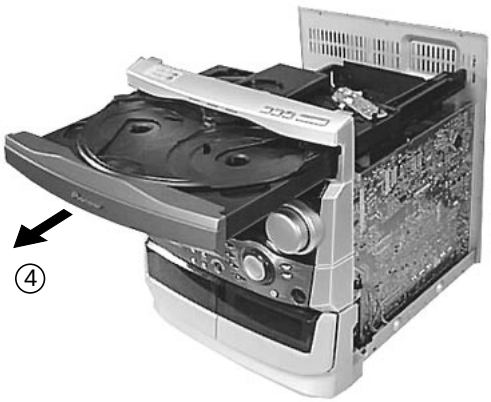
• Anode Connection

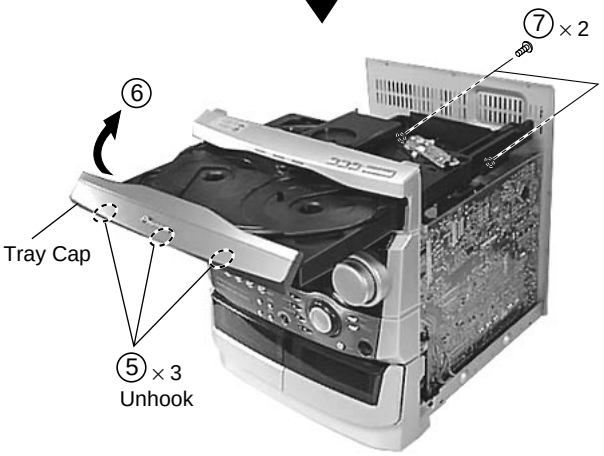
	1G	2G	3G to 6G	7G	8G	9G	10G	11G	12G	13G	14G
P1	◁	a1	a1	a1	a1	a1	L1	B1	B1	B1	R1
P2	◎◎	a2	a2	a2	a2	a2	L2	B2	B2	B2	R2
P3	▷	h	h	h	h	h	L3	B3	B3	B3	R3
P4	◎	j	j	j	j	j	L4	B4	B4	B4	R4
P5	◎	k	k	k	k	k	L5	B5	B5	B5	R5
P6	◎	b	b	b	b	b	L6	B6	B6	B6	R6
P7	REC	f	f	f	f	f	L7	B7	B7	B7	R7
P8	◯	g	g	g	g	g	L8	B8	B8	B8	R8
P9	ASES	m	m	m	m	m	L9	B9	V-CD	B9	R9
P10	◎◎	c	c	c	c	c	L10	B10	Y	B10	R10
P11	RPT	e	e	e	e	e	L11	B11	PBC	B11	R11
P12	–1	r	r	r	r	r	L12	B12	◎	B12	R12
P13	PGM	p	p	p	p	p	–	B13	↘	B13	–
P14	RDM	n	n	n	n	n	–	B14	KEY	B14	–
P15	☆	d1	d1	d1	d1	d1	–	B15	L	B15	–
P16	–	d2	d2	d2	d2	d2	–	B16	R	B16	–
P17	–	s	–	–	–	//	LS	B17	◯	B17	RS
P18	–	t	–	–	–	–	–	B18	S1	B18	–
P19	–	u	–	–	–	–	–	B19	〖 (EQ) 〗	B19	–
P20	–	w	–	–	–	–	–	B20	〖 (SURR.) 〗	B20	–
P21	–	–	–	–	–	–	–	B21	〖(P.BASS)〗	B21	–
P22	–	–	–	–	–	–	–	B22	–	B22	–
P23	–	–	–	–	–	–	–	B23	–	B23	–
P24	–	–	–	–	–	–	–	B24	–	B24	–
P25	–	Dp1	Dp1	Dp1	Dp1	–	–	–	–	–	–
P26	–	–	–	Dp2	–	–	–	–	–	–	–
P27	–	–	–	/	–	–	–	–	–	–	–

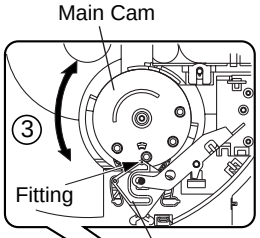
7.2 DISASSEMBLY

■ $M MECHANISM CD

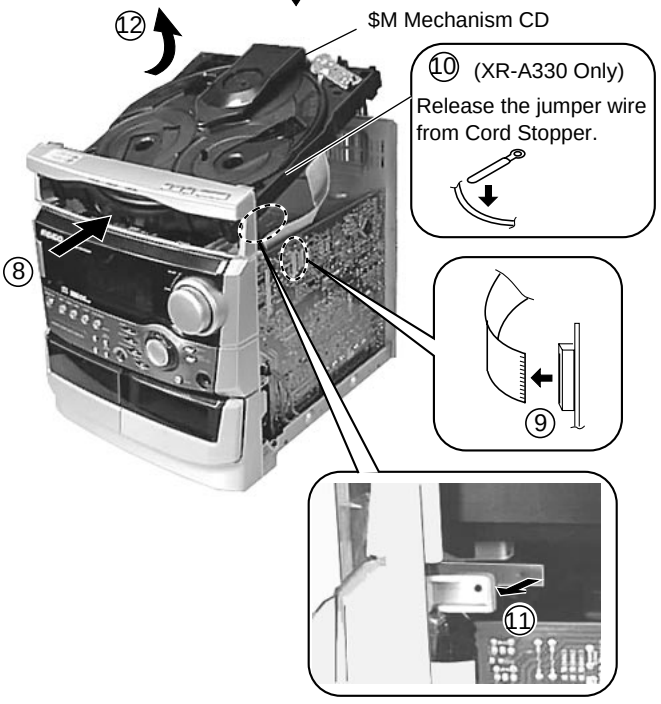




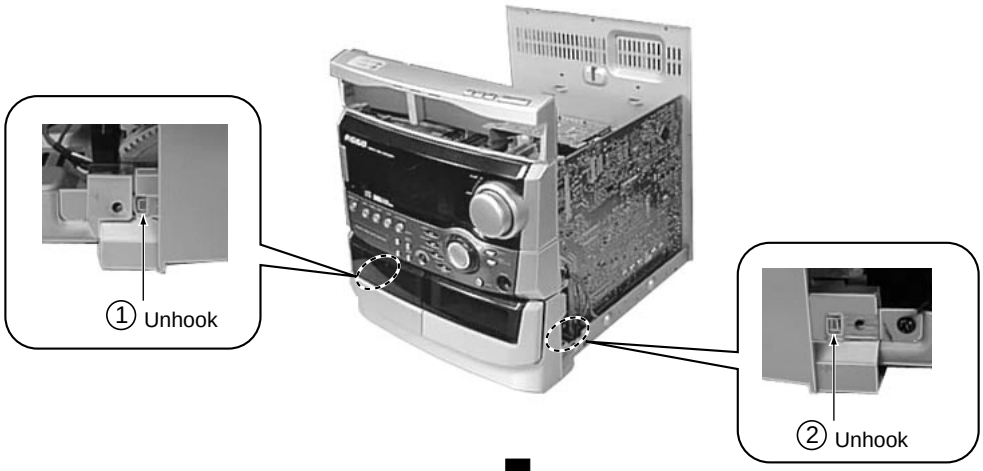


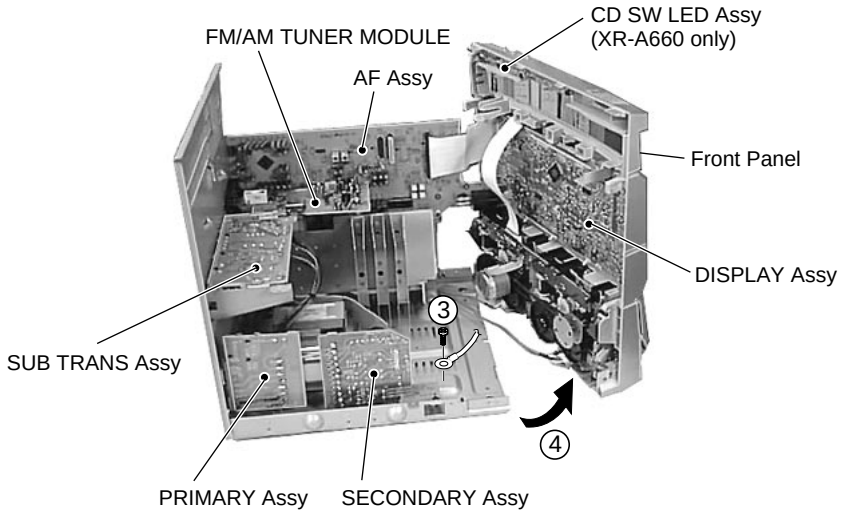


Note: The loading tray can be pulled out when the main cam is in this position. (The Lock Lever should be in the notch of the Main Cam.)



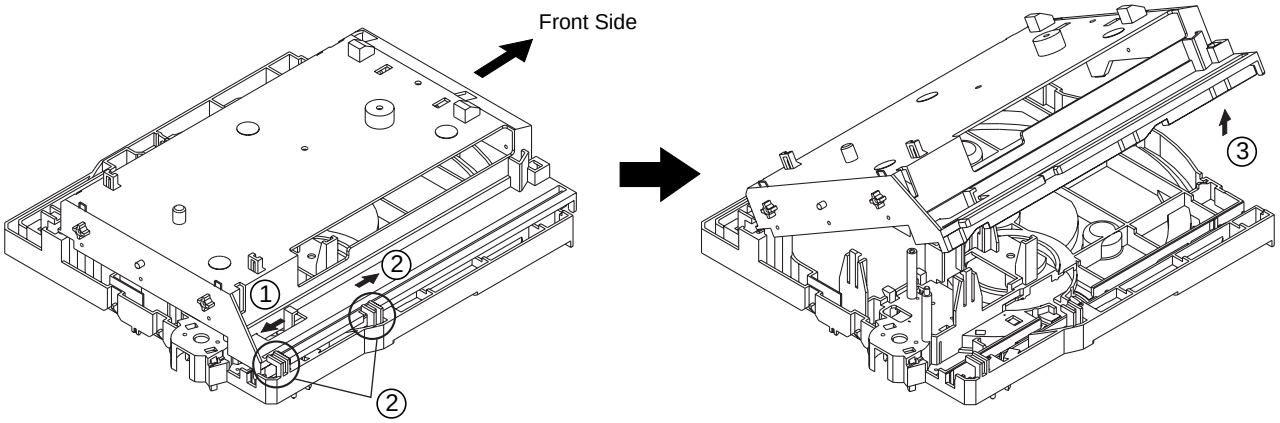
■ FRONT PANEL



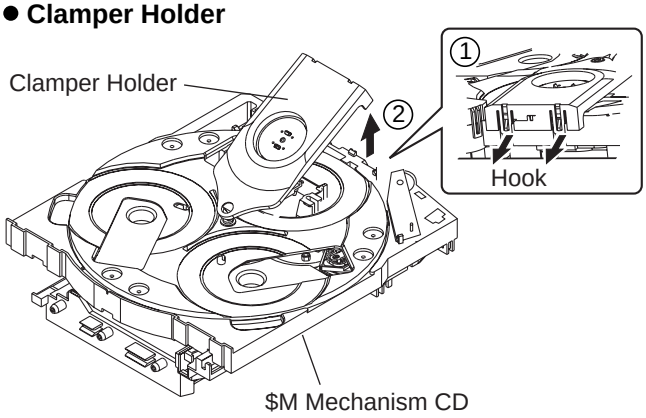


■$M MECHANISM CD ADDITIONAL TO JOB

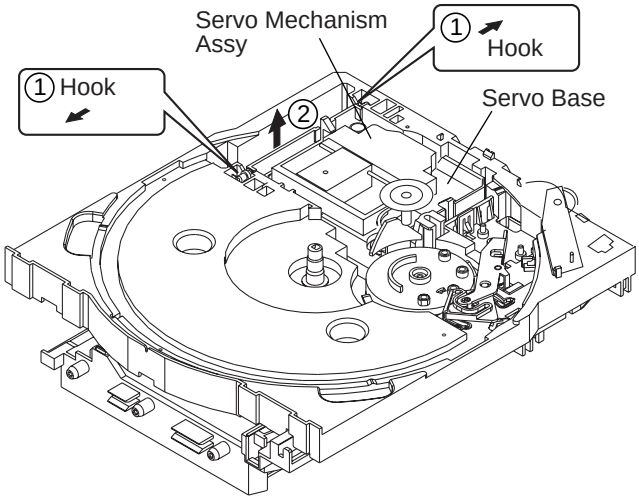
● **Mechanism Base (Bottom View)**



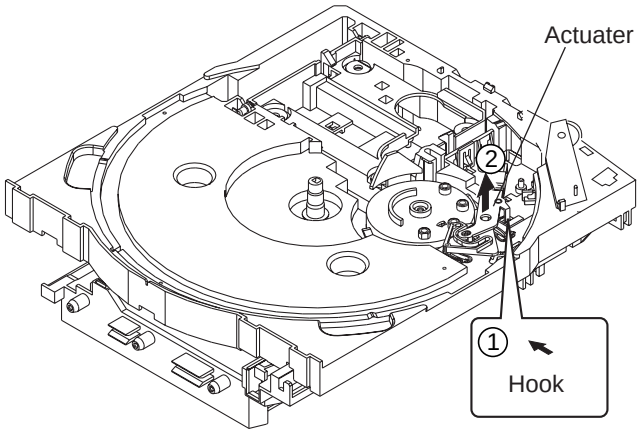
● **Clamper Holder**



● **Servo Base**

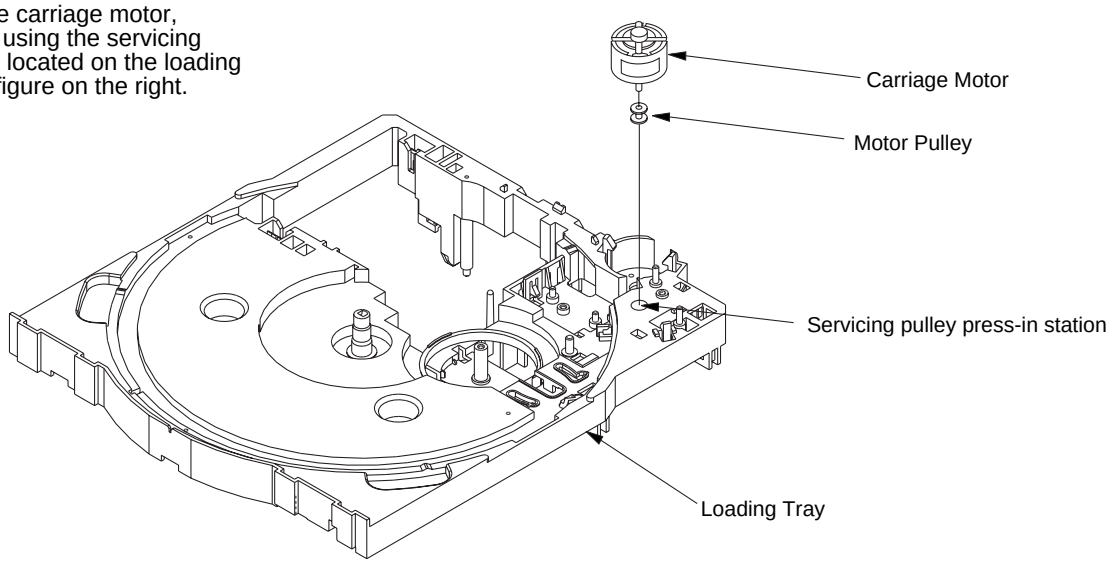


● **Actuater**

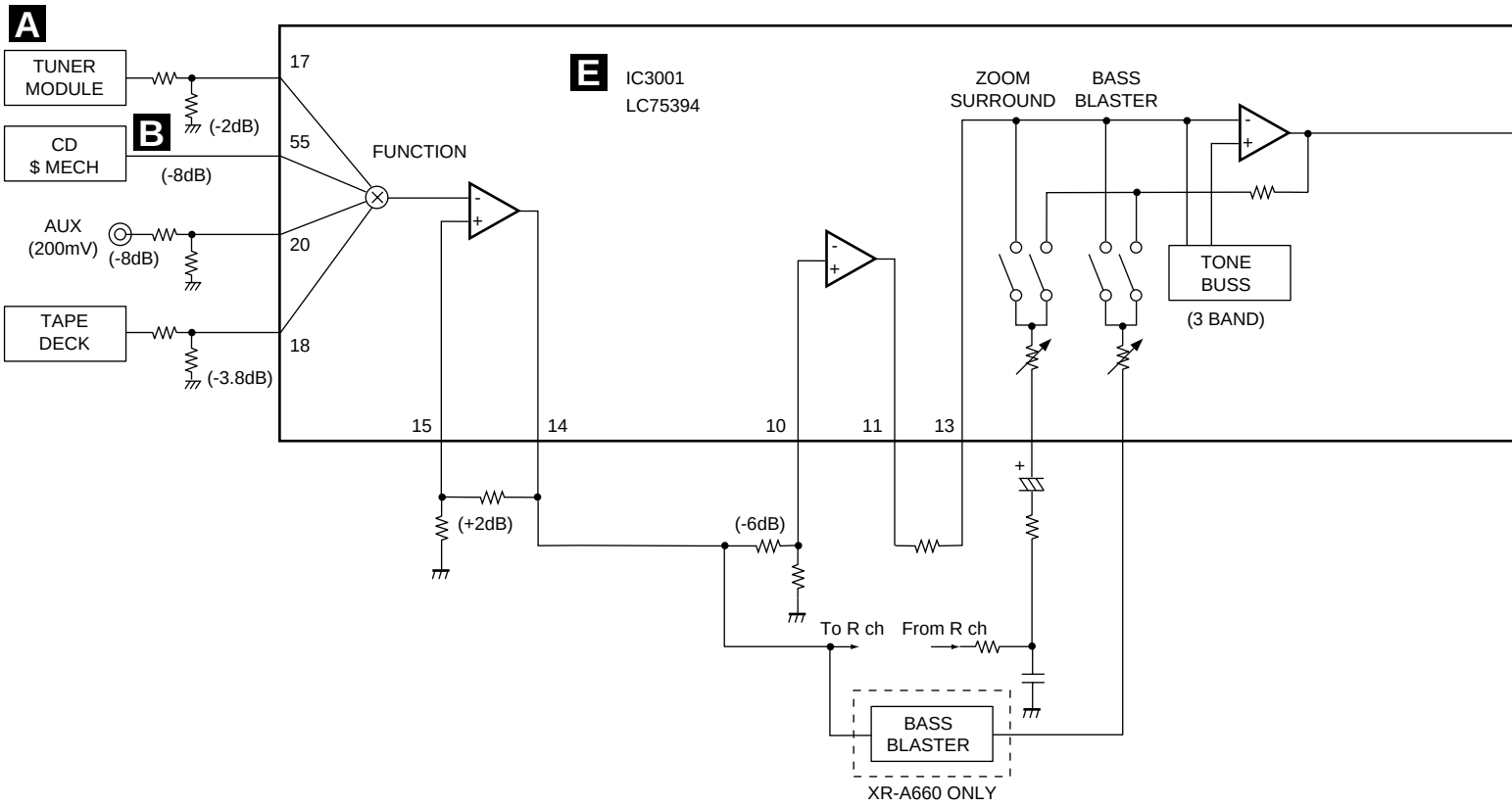


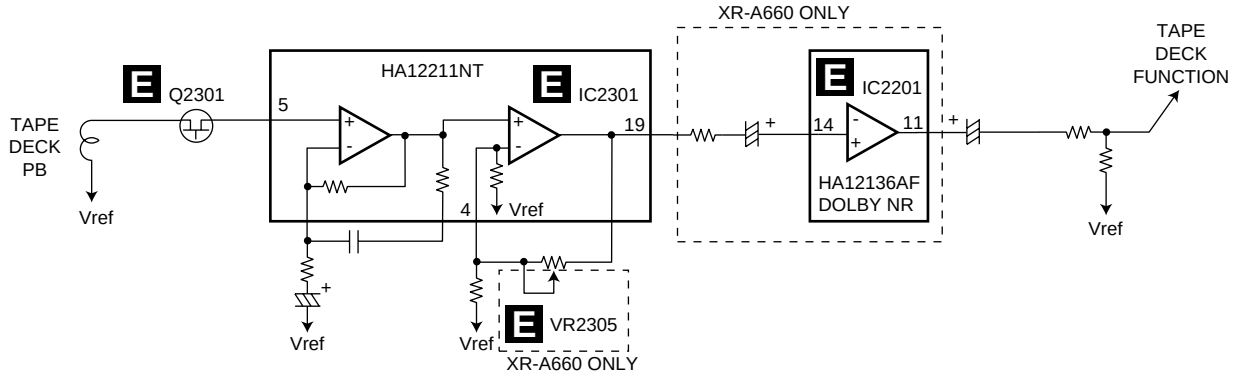
■FITTING THE PULLEY INTO THE CARRIAGE MOTOR

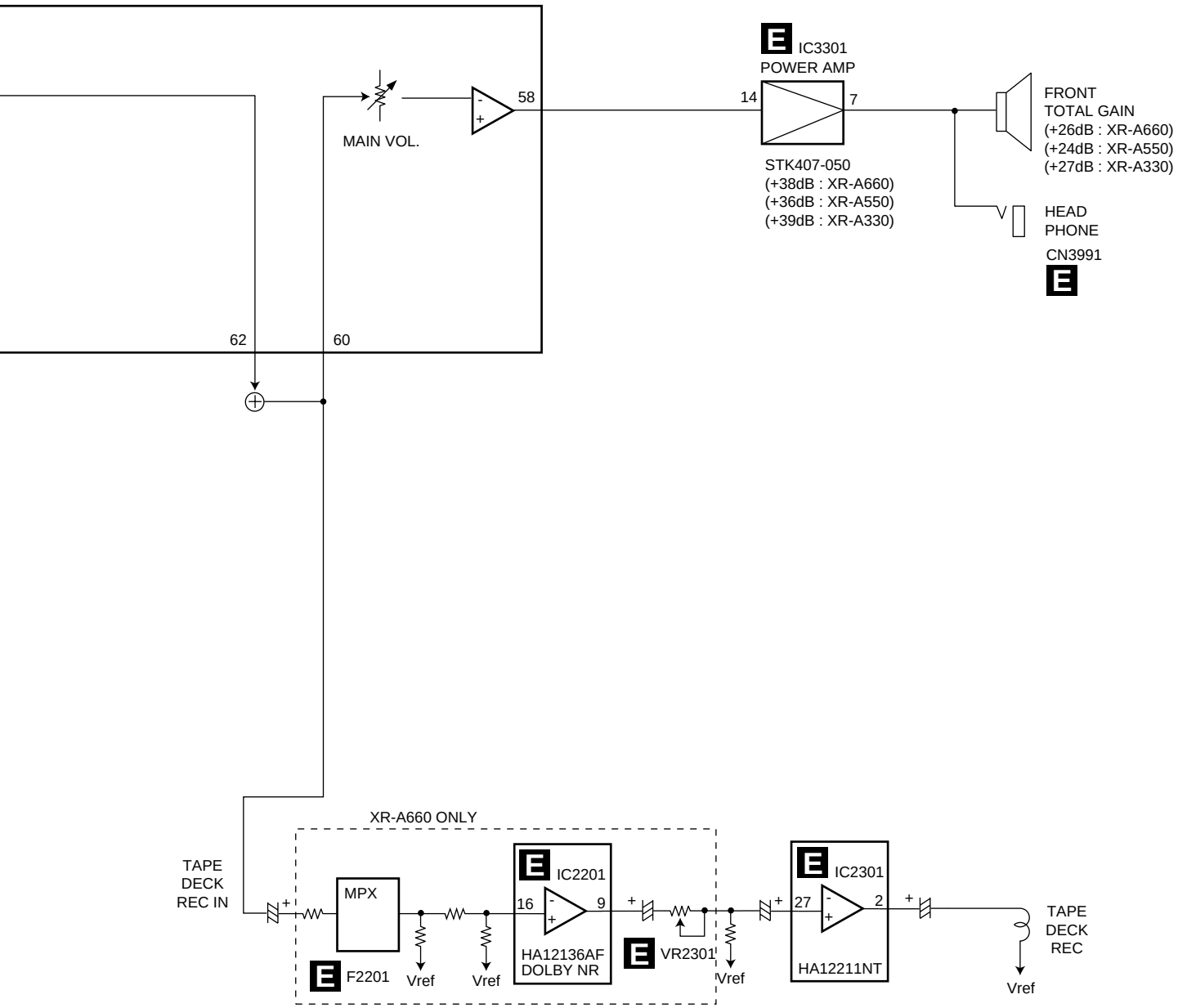
For replacement of the carriage motor, fit the motor pulley by using the servicing pulley press-in station located on the loading tray, as shown in the figure on the right.



7.3 BLOCK DIAGRAM



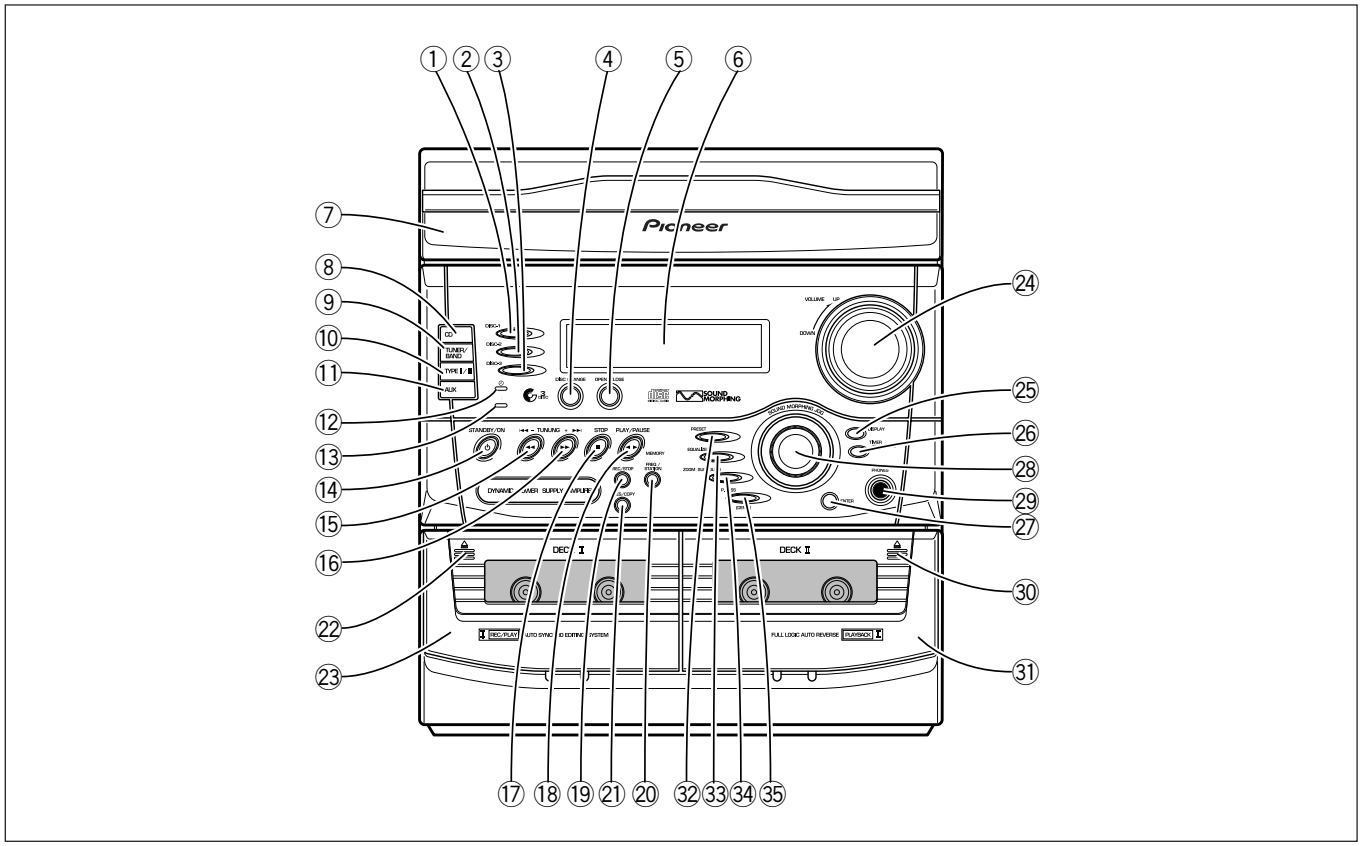



E IC3301
POWER AMP
14
7
58
MAIN VOL.
STK407-050
(+38dB : XR-A660)
(+36dB : XR-A550)
(+39dB : XR-A330)
FRONT
TOTAL GAIN
(+26dB : XR-A660)
(+24dB : XR-A550)
(+27dB : XR-A330)
HEAD
PHONE
CN3991
E
62
60
XR-A660 ONLY
TAPE
DECK
REC IN
MPX
E F2201
Vref
Vref
E IC2201
16
9
HA12136AF
DOLBY NR
E VR2301
Vref
E IC2301
27
2
HA12211NT
TAPE
DECK
REC
Vref

8. PANEL FACILITIES AND SPECIFICATIONS

• PANEL FACILITIES

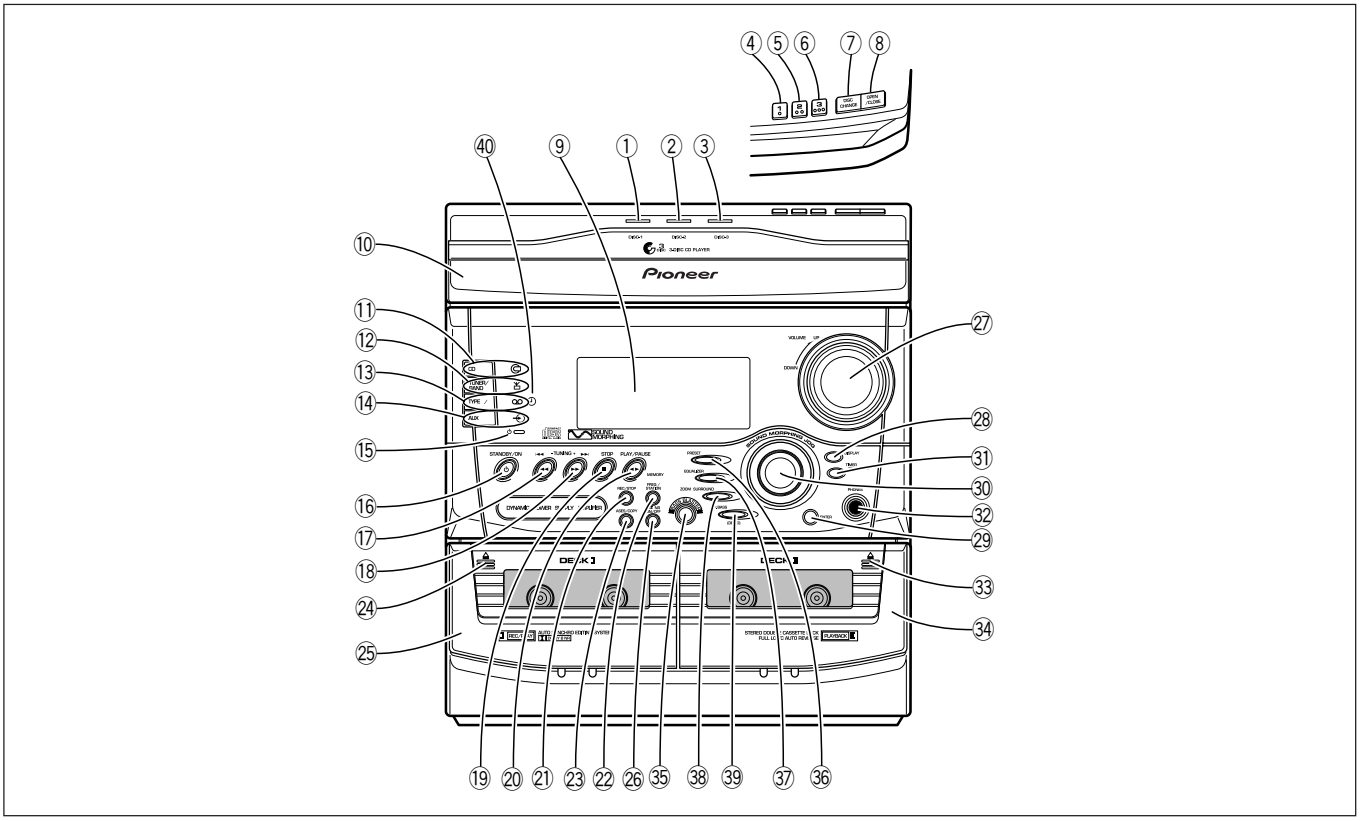
■ XR-A330



① **DISC-1 select button & indicator**
② **DISC-2 select button & indicator**
③ **DISC-3 select button & indicator**
④ **DISC CHANGE button**
⑤ **OPEN/CLOSE button**
⑥ **Display**
⑦ **CD disc tray**
⑧ **CD Function button**
⑨ **TUNER / BAND Function button**
⑩ **TAPE I/II Function button**
⑪ **AUX Function button**
⑫ **TIMER indicator**
Lights in Standby mode when the system has been set for timer operation.
⑬ **STANDBY indicator**
⑭ **STANDBY/ON switch**
⑮ **TUNNING ◄◄ I◄◄ - button ***
⑯ **TUNNING + ►►I ►► button ***
⑰ **STOP (■) button ***
⑱ **PLAY / PAUSE , MEMORY button ***
⑲ **REC / STOP button**
⑳ **FREQ/STATION button**
㉑ **ASES/COPY button**
㉒ **TAPE I Eject button (⏏)**
㉓ **TAPE I cassette door**
㉔ **Volume control (VOLUME)**
㉕ **DISPLAY button**
㉖ **TIMER / CLOCK ADJ button**
㉗ **ENTER button**
㉘ **S.M. JOG (Sound Morphing JOG)**
㉙ **PHONES jack (Headphones)**
㉚ **TAPE II Eject button (⏏)**
㉛ **TAPE II cassette door**
㉜ **PRESET button**
㉝ **EQUALIZER button**
㉞ **ZOOM SURROUND button**
㉟ **P.BASS (DEMO) button**

* This button functions differently with CD, TUNER/BAND or TAPE I/II function.

■ **XR-A660,**

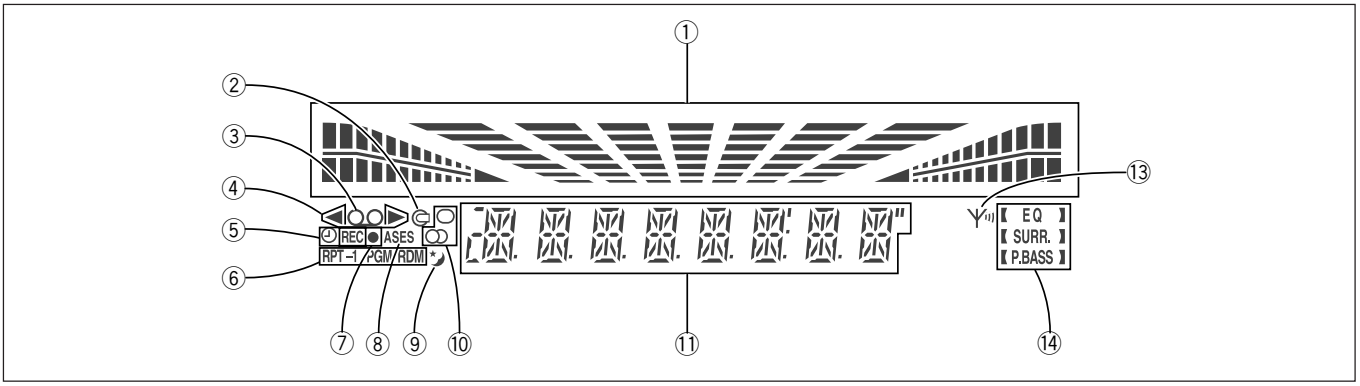


① **DISC-1 indicator**
② **DISC-2 indicator**
③ **DISC-3 indicator**
④ **DISC-1 select button**
⑤ **DISC-2 select button**
⑥ **DISC-3 select button**
⑦ **DISC CHANGE button**
⑧ **OPEN / CLOSE button**
⑨ **Display**
⑩ **CD disc tray**
⑪ **CD Function button & indicator**
⑫ **TUNER / BAND Function button & indicator**
⑬ **TAPE I / II Function button & indicator**
⑭ **AUX Function button & indicator**
⑮ **STANDBY indicator**
⑯ **STANDBY / ON switch**
⑰ **TUNNING ◄◄ I◄◄ - button ***
⑱ **TUNNING + ►►I ►► button ***
⑲ **STOP (■) button ***
⑳ **PLAY / PAUSE , MEMORY button ***
㉑ **REC / STOP button**
㉒ **FREQ / STATION button**
㉓ **ASES / COPY button**
㉔ **TAPE I Eject button (⏏)**
㉕ **TAPE I cassette door**
㉖ **Dolby** ** **NR ON/OFF button**
㉗ **Volume control (VOLUME)**
㉘ **DISPLAY button**
㉙ **ENTER button**
㉚ **S.M. JOG (Sound Morphing JOG)**
㉛ **TIMER / CLOCK ADJ button**
㉜ **PHONES jack (Headphones)**
㉝ **TAPE II Eject button (⏏)**
㉞ **TAPE II cassette door**
㉟ **BASS BLASTER button & indicator**
㊱ **PRESET button & indicator**
㊲ **EQUALIZER button & indicator**
㊳ **ZOOM SURROUND button & indicator**
㊴ **P.BASS (DEMO) button**
㊵ **TIMER indicator**
Lights in Standby mode when the system has been set for timer operation.

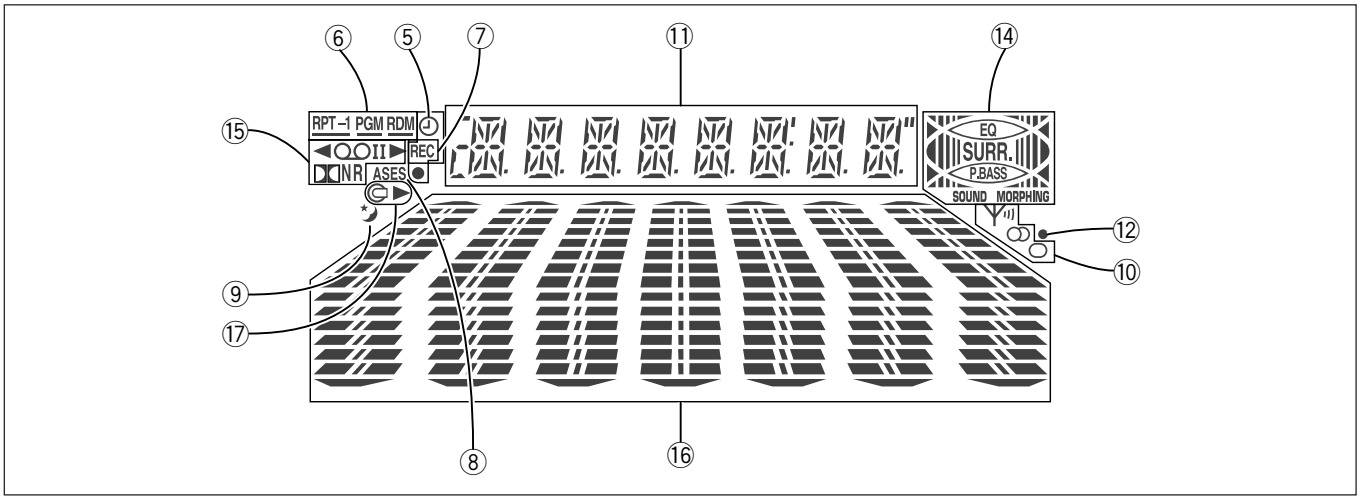
* This button functions differently with CD, TUNER/BAND or TAPE I/II function.

** Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
“DOLBY” and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

■ **XR-A330**



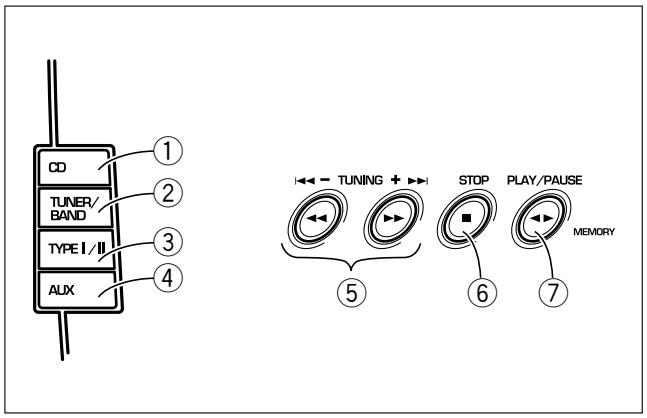
■ **XR-A660**



Display section

① **Indicates audio level.**
② **Lights when the selected function is CD.**
③ **Lights when the selected function is TAPE.**
④ **Indicates CD and TAPE play status.**
⑤ **Displays timer function indications.**
⑥ **Indicates CD function status.**
⑦ **Lights during recording.**
⑧ **Lights during ASES operation.**
⑨ **Lights during Sleep Timer operation.**
⑩ **Indicates tuner operation status.**
⑪ **Displays a wide range of operation status indications.**
⑫ **Lights when BEAT CUT 2 is selected.**
⑬ **Indicates tuner reception status.**
⑭ **Indicates SOUND MORPHING status.**
⑮ **Indicates TAPE status.**
⑯ **Displays Audio level, spectrum analyzer and other indications.**
⑰ **Indicates CD player operation status.**

Function button section



① **CD function button**
② **TUNER/BAND function button**
③ **TAPE I/II function button**
④ **AUX function button**
⑤ **TUNING [◄◄,I◄◄ (–), (+) ►►I,►►] buttons**
⑥ **STOP button (■)**
⑦ **PLAY/PAUSE button (◄ ►)**

- **Roles of the common operation buttons (The rules of the buttons vary depending on the input functions as shown below.)**

During CD input
PLAY/PAUSE: Play/pause button
STOP: Stop button
(+) ►►I,►►: Fast forward/track search button
◄◄,I◄◄ (–): Fast reverse/track search button

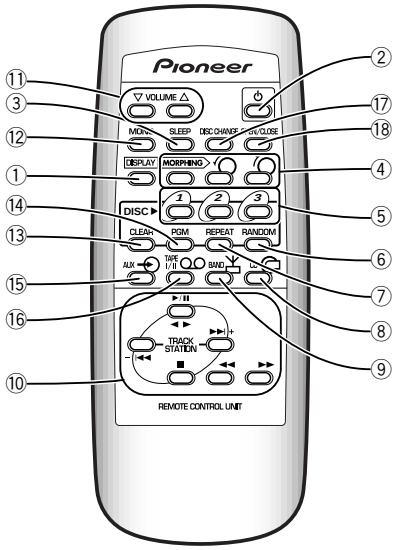
During cassette deck input
PLAY/PAUSE: Play button/Tape transport direction
STOP: Stop button
(+) ►►I,►►: Fast forward button/Music search button
◄◄,I◄◄ (–): Rewind button/Music search button
(The XR-A330 does not feature the Music Search I◄◄ ►►I function.)

During tuner operation
PLAY/PAUSE MEMORY: STATION MEMORY button
(+) ►►I,►►: Frequency & Station + (up) button
◄◄,I◄◄ (–): Frequency & Station – (down) button

■ Auto Play Function
If you press the CD function button when a CD is loaded, the CD automatically starts playing. If you press the TAPEI/II function button when a tape is loaded in the cassette deck, the tape automatically starts playing.

NOTE:
The function cannot be switched during recording and tape copying.

REMOTE CONTROL UNIT



① **DISPLAY button**
② **STANDBY / ON button**
③ **SLEEP timer button**
④ **SOUND MORPHING mode button & SOUND MORPHING jog control buttons**
⑤ **DISC select buttons (1-3)**
⑥ **RANDOM button**
⑦ **REPEAT button**
⑧ **CD function button**
⑨ **BAND button**
Use to switch between FM and AM bands.

⑩ **CD/TAPE/STATION (up,down) operation buttons**
- **CD operation buttons**
(Play/Pause ►/II , Track search I◄◄ ►►I , Stop ■, Fast ◄◄ ►►)
- **TAPE operation buttons**
(Play ◄ ► , Music Search I◄◄ ►►I , Stop ■, Fast ◄◄ ►►)
(The XR-A330 does not feature the Music Search I◄◄ ►►I function.)
- **TUNER buttons**
+ Stations change in order in the upward direction.
– Stations change in order in the downward direction.
◄◄ Frequency down.
►► Frequency up.

⑪ **VOLUME ▲ (up), ▼ (down) buttons**
⑫ **MONO button**
⑬ **CLEAR button**
⑭ **PGM button**
⑮ **AUX function button**
⑯ **TAPE I / II function button**
⑰ **DISC CHANGE button**
⑱ **OPEN/CLOSE button**

• SPECIFICATIONS

■ **STEREO FILE-TYPE CD CASSETTE DECK RECEIVER**

Amplifier Section

XR-A660 (U.S.and Canadian model)

Continuous Average Power Output is 68 Watts* per channel, min., at 6 ohms from 60 Hertz to 15.000 Hertz, with no more than 5.0 % total harmonic distorsion.**

XR-A330 (U.S.and Canadian model)

Continuous Average Power Output is 50 Watts* per channel, min., at 6 ohms from 60 Hertz to 15.000 Hertz, with no more than 5.0 % total harmonic distorsion.**

* Measured pursuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers.

** Measured bu Audio Spectrum Analyzer.

Continuous Power Output (RMS)

XR-A660 ..... 100 W + 100 W(1kHz, T.H.D. 10 %, 6 Ω)

XR-A330 ..... 70 W + 70 W(1kHz, T.H.D. 10 %, 6 Ω)

FM/AM Tuner section

FM tuner section

Frequency Range ..... 87.5 MHz to 108 MHz

Antenna input ..... 75 Ω unbalanced

AM tuner section

FrequencyRange ..... 531 kHz to 1,602kHz

Antenna input ..... Loop antenna

CD section

Type ..... Compact disc digital audio system

Wow and Flutter ..... Limit of measurement (±0.001 % W.PEAK) or less (EIAJ)

Cassette deck section

Systems ..... 4 track, 2-channel stereo

Heads ..... Recording/playback head x 1

..... Playback head x 1

..... Erasing head x 1

Motor ..... DC servo motor x 1

Tape type

XR-A330 ..... TYPE I (Normal) tape

XR-A660

..... TYPE I (Normal) tape / TYPE II (HIGH/CrO_2) tape

Miscellaneous

Power Requirements

U.S. and Canadian models ..... AC120V, 60 Hz

Australian model ..... AC240V, 50/60 Hz

Power Consumption

XR-A660

U.S. and Canadian models ..... 150 W

Australian model ..... 580 W

XR-A330

U.S. and Canadian models ..... 90 W

Australian model ..... 330 W

Power Consumption in standby mode ..... 1 W

Dimensions

XR-A330, XR-A660 ..... 270 (W) x 300 (H) x 336 (D) mm
10-5/8 (W) x 11-13/16 (H) x 13-1/4 (D) in.

Weight (without package)

XR-A330 ..... 7.6 kg (16 lb 12 oz)

XR-A660 ..... 8.0 kg (17 lb 11 oz)

Accessories

Operating instructions 1

Remote control unit 1

Size AA/R6P dry cell batteries 2

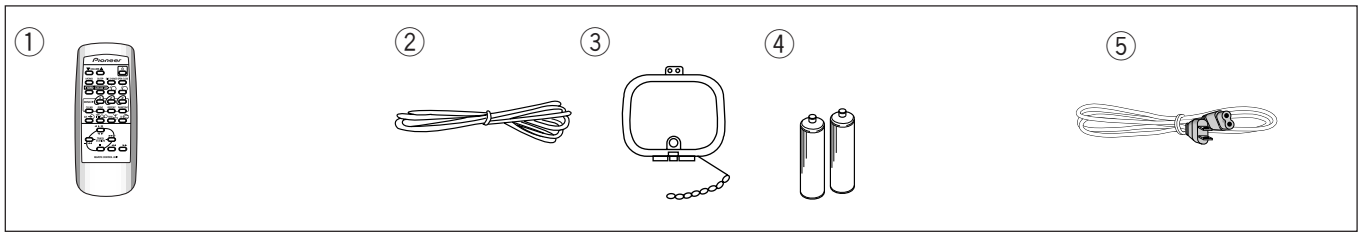
FM antenna 1

AM loop antenna 1

Power Cord 1

NOTE:

Specifications and design subject to possible modification without notice due to improvement



① Remote control unit x 1 : XZN3006 (CU-XR048)

② FM antenna x 1 : ADH7004

③ AM loop antenna x 1 : XTB3001

④ AA/R6P dry cell batteries x 2

⑤ Power Cord x 1 : ADG7022 (KUCXJ type)
ADG1160 (YPWXJ type)